

AN INVENTORY, EVALUATION AND PROJECTION
OF MANUFACTURING
IN
TOPEKA, KANSAS

by

LLOYD A. STJERNBERG

B. S., Northern Illinois University, 1961

A MASTER'S THESIS

submitted in partial fulfillment of the
requirements for the degree

MASTER OF SCIENCE

Department of Geology and Geography

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1963

Approved by:

Stewart G. Hanz
Major Professor

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ACKNOWLEDGMENTS

A study of the nature included herein requires the cooperation of a multitude of individuals. I would like to express appreciation to the many people that were extremely helpful in contributing detailed data, valuable opinions, extensive effort and, most important, their time. Special thanks are due Mr. A. B. Woody, former Chairman of the City Planning Commission of Topeka for basic information on the city's economy that formulated the organization of the study and for introducing the author to various organizations and individuals that added appreciably to the completed study.

Thanks are due also to each manufacturing executive and representative that provided specific information on the operation and future outlook of their establishment as well as the general economy of Topeka. Several of these are especially notable for their extensive assistance which aided the study immeasurably; Mr. Robert Hengerer, American Year-Book Company, Inc.; Mr. William Cox and the office of Public Relations, Atchison, Topeka and Santa Fe Railroad Company; Mr. William Heil, Public Relations Director, and Mr. George MacKaskie, Distribution Manager, Goodyear Tire and Rubber Company. The Topeka-Shawnee County Regional Planning Commission deserves a special word of thanks for having made

available invaluable material assembled by this organization.

I am particularly indebted to Dr. Herbert L. Rau, Professor of Geography, at Kansas State University who supervised this study, for his constructive advice and criticism and, above all, his patient efforts throughout its development and completion.

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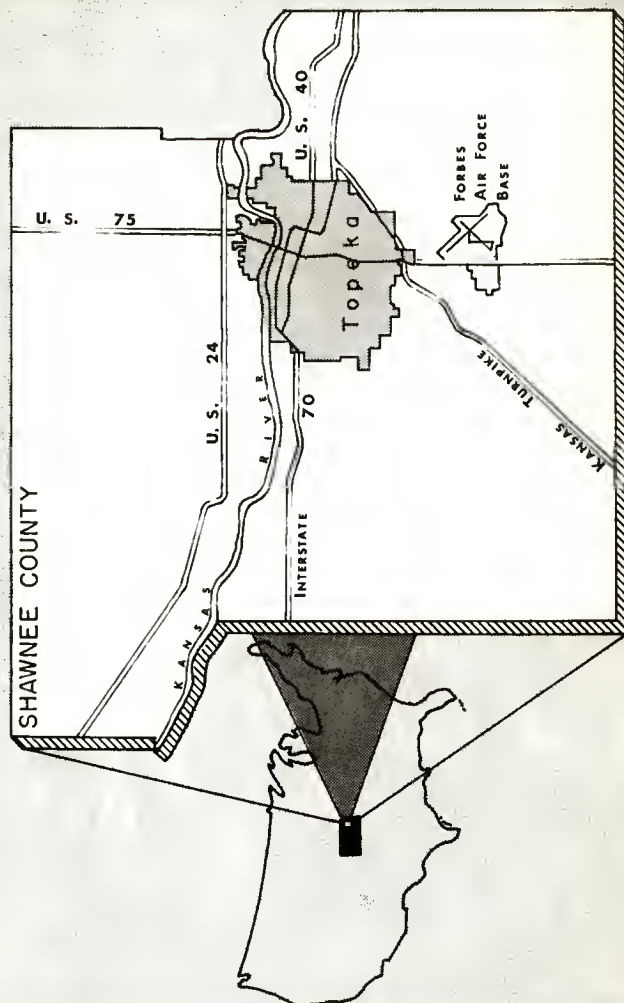
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THE TOPEKA METROPOLITAN AREA



CHAPTER I

INTRODUCTION

A brief historical geography of Topeka. The Topeka Metropolitan Area (Shawnee County) is a part of the Osage Plaine that comprise the eastern one-third of Kansas. To the west is the beef cattle grazing area of the Flint Hills. The rolling glaciated region lies east and north and is the most fertile agricultural area of the state. During the era of settlement the site which Topeka was to occupy was overlooked generally in favor of larger river cities along the Missouri and Kansas rivers, rail heads crossing cattle trails, or agricultural settlements or mining speculation in the Rocky Mountains, the Basins and Ranges, or the valleys and ranges of the Pacific coast.

The earlier organization and proximity of nearby cities such as Kansas City and Omaha as points of departure westward caused many to overlook the advantages of the Topeka area. The site lies astride the west-east oriented Kansas River. The local terrain is flat to gently rolling where the river plain terminates and the upland begins and allows for natural drainage and easier construction. Adequate woodlands were present originally and many still remain in stream valleys, and an abundance of limestone was available in the surrounding hills and sand and gravel in streams for building purposes. As in the middle 1850's the

site commands the Kansas river valley for several miles in either direction without competition. Finally, the climate is favorable, generally marked by a sufficient amount of precipitation, hot summers, and relatively mild winters.

Each of these elements of the natural environment contributed to the selection of the present site over possible alternate choices at the present cities of Manhattan and Junction City. Two heavily traversed trails of the day intersected at the site. The Oregon Trail led to the west from Kansas City, and the Naches Pass Trail reached to the southwest from St. Joseph, Missouri. This crossroads intersection of trails and position over the Kansas River were probably the most important factors in the selection and settlement of the Topeka site.

The city was incorporated in 1857 and Topeka was chosen the state capital by popular vote when Kansas was admitted to the Union in 1861. Cyrus K. Holliday, the leader of Topeka's early development, was selected as the first mayor.

Holliday was not only a politician but a formidable businessman as well. He was able to envision the growth of the Southwest and Far West and anticipate the need for manufactured products from the eastern industries in these new western settlements. He initiated railroad construction from the city, later to become the first president of the infant Atchison and Topeka Railroad.

Major early efforts to develop the resources of site, situation, and economic potential were directed into public administration and transportation. Until the early 1940's there was a notable lack of effort to establish other industries, beside the growth of retailing services to serve the immediate hinterland. Meanwhile, other cities along the Missouri River and Kansas border were experiencing primary industrial growth. By 1900 Omaha and Kansas City had become important transportation terminals at river crossings and prominent processing centers for meat packing and grain milling. Two decades later Wichita and Tulsa emerged as focal points of mineral production. It is fortunate that Topeka, with its intermediate position, could profit from state government and transportation services during these early years.

The growth of transportation. The choice of site proved advantageous as the first railroads began westward construction in 1864. River valleys and original wagon trails by-passed many natural barriers and were the routes most accessible or least expensive for construction. Since several important wagon trails met in the river valley at the site, Topeka became a gateway to the Southwest territories. This became evident in 1866 when the Union Pacific became the first railroad to construct track and facilities from Kansas City to Eugene (North Topeka). After an uncertain beginning the Atchison, Topeka, and Santa Fe Railroad

established permanent shops at Topeka in 1878. The Missouri Pacific and the Chicago, Rock Island, and Pacific completed connections in 1887, thus joining Topeka with the large cities to the east and the Pacific coast.

The Union Pacific and Santa Fe later added further railway service and all four railroads have increased the volume of traffic. As a result Topeka is recognized as a transportation center. The Santa Fe operates one of the largest service and repair plants in the city, and occupies a ten-story divisional office building. These two classes of activity have contributed to the economic stability and growth of Topeka.

Roads have become of added significance since the construction of all weather and paved highway in the 1920's. Several national and state arteries pass through or near the city in major directions. When the Interstate 70 Highway is completed paralleling U. S. 40, it will link Topeka to St. Louis, Kansas City, Salina, Kansas, and Denver, Colorado. The Kansas Turnpike offers a direct route east to Kansas City and southwest to Wichita; while U. S. 24 carries traffic through northwestern Kansas to Denver as well as to the eastern markets. U. S. 75 is an important north to south route and passes through Topeka from Omaha through Tulsa to Dallas, Texas. Twenty-two local, state-wide, and national trucking companies consider this cross-road position advantageous and have established headquarters

in Topeka.

Central Air Lines covers a five state area centered on Kansas and is the only regularly scheduled air service to Topeka. In addition, airport facilities are adequate for private planes, including executive flights serving the larger corporations with offices elsewhere.

The central location of Topeka. Recent trends in the development of the United States have contributed to the economic advantage and accessibility of Topeka. The first of these is population change. Continued national prosperity and growth and relocation of population from rural to urban areas has opened new urban markets of substantial size in the Great Plains. The increase in urban numbers has paralleled a westward shift in the population center of the nation. Also, the rural out-migration from the Great Plains, so prominent in the 1930's has leveled. Topeka and other western Midwest cities have a more favorable advantage of location as a result and the renewed upturn in population growth of cities has encouraged further economic expansion that can be served from this area.

Another factor initiating change is a national trend to the decentralization of manufacturing. Large corporations within the American Manufacturing Belt have concentrated production either outside the region, or have constructed divisional plants away from the old areas of manufacturing activity. Many of these companies are seeking a

relatively new manufacturing locale for a variety of reasons. Among the more important are: (a) an abundant labor force of higher than average school years completed; (b) good transportation systems; (c) access to specific markets; and (d) improved living conditions for transferred executives and other employees. These conditions prevail in Topeka.

Manufacturers and distributors have taken careful note of a westward shift in markets, and competition among manufacturers and distributors of many commodities is great to increase production in smaller metropolitan areas located away from the intensely developed northeastern United States. Topeka must compete with several cities within a 200 mile radius to attract new manufacturing establishments. Not one of these urban centers is smaller in population. All offer several unique advantages to prospective manufacturing and processing activities. The challenge to Topeka is how to induce manufacturers to construct facilities here instead of selecting larger and often more favorable industrial locations elsewhere.

The economic character of Topeka. Since its pioneer settlement Topeka has maintained a high percentage of its labor force in service industries, especially in public administration and transportation. The importance of these employment activities cannot be understated, and should increase in the future because of the expansion of state

government, retailing, and white collar employment in the local metropolitan area. The natural increase in population, the centralizing influence of the metropolitan area, and the rural to urban migration are strong forces supporting growth. Population growth also increases the need for the locally produced manufactured and processed goods, particularly foodstuffs, and the expansion of distribution facilities to link manufacturer and processor with consumer markets.

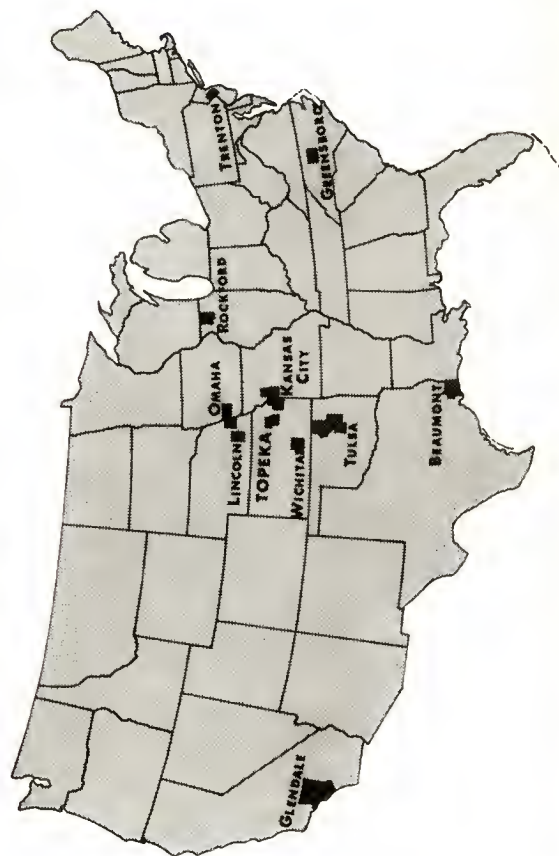
However, the outlook for manufacturing activities of size is less encouraging. Early manufacturing activities were established to fill the needs of the city and its immediate hinterland. The raw material base rested on basic production from an agricultural hinterland predominantly and supplied food processing activities. Farm and livestock commodities continue to account for a significant portion of the city's overall manufacturing. The presence of these primary industries gives an indication that manufacturing activities in the city rely on basic production of the rural hinterland. This fact is emphasized further by the following characteristics of economic activity in the metropolitan area: (a) approximately three-fourths of the establishments operate with less than 20 employees; (b) only two large national manufacturers have undertaken production and constructed facilities of significant size in the last twenty years; (c) a majority of owners and

businessmen are Topekans by birth and have either started small shops of their own or inherited establishments started fifty to seventy-five years ago; and (d) a substantial number of the small establishments rely for their existence on larger corporations in Topeka, such as the Santa Fe Railroad system.

The general consensus of opinion of manufacturing representatives interviewed was that Topeka definitely needs more manufacturing industries. However, few could offer any practical, workable methods of attracting new industries, or would identify specific classes of industries that would contribute to the economy. It is not the purpose of this study to suggest such solutions. It is intended as a guide to provide insight and understanding of the problems confronting an urban area in economic transition by evaluating Topeka's present situation and considering physical and socio-economic conditions.

FIGURE 1

STANDARD METROPOLITAN STATISTICAL AREA
OF TOPEKA AND SELECTED CITIES



CHAPTER II

OBJECTIVES AND METHODS OF ANALYSIS

Statement of the problem. This study was undertaken to provide a classification, analysis, and interpretation of manufacturing growth in Topeka, Kansas, a smaller metropolitan area. The Topeka metropolitan area was selected because the author was familiar with the general economic situation of the central city. Secondly, it provides a specific case study in a region of the United States that is experiencing notable changes in population growth and in centralizing factors such as economic accessibility and transportation. Third, in the last decade several organizations¹ in Topeka have endeavored to attract manufacturing establishments to the city.

The purpose of this geographic investigation is: (1) to classify and evaluate manufacturing activities in Topeka by, (a) describing plant location, employment characteristics, source of raw materials, and markets, (b) identifying elements that indicate change at the present, and (c) to determine what geographic and other elements have affected the conditions that now prevail; (2) to apply and test selected geographic methods of urban and industrial description

¹Most notable of these are the Topeka Chamber of Commerce and the Economic Development Commission (formerly the Kansas Industrial Development Commission).

and analysis; and (3) to contribute to future studies concerned with the changing urban-economic situation in Kansas.

In order to cast the Topeka metropolitan area in its proper perspective, a useful point of departure is to illustrate the evolution of socio-economic patterns in Topeka and to compare and contrast its characteristics to those of the United States. How are shifts in population growth and market potential affecting urban places in the Great Plains, such as Topeka? How may these changes affect the service activities so prominent in Topeka? What impact would more manufacturing activity have on the city's economy?

Several significant methods of analysis have been made by economists and geographers in urban classification and description. These methods are utilized to assist in identifying trends and determining the directions of change that are affecting the city.

A geographic analysis of this type will provide a reference tool for economists, city planners, interested businessmen, and geographers. Many studies will be undertaken in the future, investigating the changes in marketing, types of manufacturing and processing activities, and the demographic structure of Topeka and its metropolitan area. It is hoped that this study will contribute to future investigations. Further information on detailed data collected is available by contacting the author.

The background of manufacturing studies. As the United States developed a mature manufacturing economy in the early part of the twentieth century, geographers and economists became active in analyzing a group of economic activities new to North America. The first studies of this nature were concerned with factors influencing the location of industry. Primarily, this included an examination of many individual steps in the industrial process and a comparison and contrast of cost elements involved in the elaboration of each phase of manufacturing.²

A significant contribution was made to urban geography in 1943 by Chauncy Harris. This was one of the initial efforts to present a classification of U. S. cities based on a quantitative method.³ Harris derived the most important activity of each city using employment figures reduced to percentages. However, he realized that to a variable degree all cities are multifunctional. For example, cities of the M_1 (manufacturing) subtype are those in which "employment in manufacturing equals at least 74 percent of total employment in manufacturing, retailing, and wholesaling."⁴ This study remains as one of the most

²Weber, Alfred, Theory on the Location of Industries, translated by Carl J. Friedrich (Univ. of Chicago Press, 1929).

³Harris, Chauncy D., "A Functional Classification of Cities in the United States," Geographical Review, (Vol. 33, 1943), pp. 86-99.

⁴Ibid., p. 88.

important and durable methods of urban analysis.

Allan Rodgers discussed diversification as a more recent innovation in American industry.⁵ He used a basis of employment by manufacturing group for a specific area and compared this "with the average distribution for all of the industrial areas studied with the latter considered a norm or reference level."⁶ With this method he was able to determine, among other things, an historical change in manufacturing and a statistical base for studying the effects of diversification versus specialization in specific areas.

Continued interest in the location of industry led Harris to note that economic activity associated with the location of raw materials was becoming less important.⁷ Meanwhile, market orientation in American manufacturing was increasing. Manufacturing establishments were becoming associated more closely with other manufacturers who were producing parts and equipment. The supply manufacturers provide markets for certain industrial goods "and support

⁵Rodgers, Allan, "Some Aspects of Industrial Diversification in the United States," Economic Geography, (Vol. 33, January, 1957), pp. 16-30.

⁶Ibid., p. 19.

⁷Harris, Chauncy D., "The Market as a Factor in the Localization of Industry in the United States," Annals of the Association of American Geographers, (Vol. 44, Dec., 1954), pp. 315-48.

people who constitute the markets for manufactured consumers' goods."⁸

The two concepts of diversification and market orientation were developed further in later studies. In 1958 the effect of one activity on another was analyzed and it was concluded by Zelinsky that the historical settlement of the consumer and laborer was significant to the location of manufacturers.⁹ Conversely, the uneven distribution of industry has promoted substantial population movement and uneven population growth in the United States.

These studies outlined several principles and characteristics of manufacturing, and each made a definite contribution. Howard J. Nelson suggested a method that would form a basis for classification that identifies where an economic activity becomes important enough to occupy a significant portion of an urban area's economy.¹⁰ Nelson determined the percentage of the labor force in each industry or service using employment in the major occupational groups. This percentage was compared with the national average in each corresponding category. A compilation was completed for 897

⁸Ibid., p. 335.

⁹Zelinsky, Wilbur, "A Method for Measuring Change in the Distribution of Manufacturing Activity: the United States 1939-47," Economic Geography, (Vol. 34, April, 1958), pp. 95-126.

¹⁰Nelson, Howard J., "A Service Classification of American Cities," Economic Geography, (Vol. 31, July, 1955), pp. 189-210.

urban areas of over 10,000 population using this method.

These cities were divided into seven groups by population to avoid ambiguity and averages were computed for each group. Although this indicated some variation, the differences were small and showed no constant divergence from the overall averages. The standard deviation from the U. S. average was employed to determine the outstanding activity of an urban area. For example, the average proportion of the labor force in manufacturing was 27.07 percent. The standard deviation was 16.04 percent. An urban area was classified as a manufacturing center only if the proportion of the labor force in that activity exceeded one standard deviation, or over 43 percent. It is interesting to note that in 1950, 183 of the 897 cities studied by Nelson were included in this category.

This classification is effective to further analyze the population characteristics. A simple listing of the major economic activities in urban areas does not indicate the changes or relationship to other pertinent information. Nor does it illuminate the affect of location on cities with similar classifications. In an attempt to suggest the usefulness of his method, Nelson made a further study of urban places.¹¹ He was able to point out differences on a

¹¹Nelson, Howard J., "Some Characteristics of the Population of Cities," Economic Geography, (Vol. 33, April, 1957), pp. 95-108.

regional basis by comparing cities of the same predominant industry.

Nelson noted that cities of the same function were correlated in their variation from the norm. But certain dissimilarities could be pointed out in a regional analysis. The more rapid population and industrial growth of the western states and the relatively retarded growth of the north-east are trends in a constant transition of socio-economic conditions.

There has been considerable debate among geographers about the validity of a single-criterion measurement. A comparison based on this method is subject to the range of variation of characteristics that prevail in different areas. John H. Thompson stated that a multiple-criteria method uncovers these dissimilarities and the accumulated evidence allows for a true, descriptive analysis and comparison of two or more specified places.¹² In presenting a new method of measuring manufacturing magnitude and intensity, Thompson selected five types of statistics: (1) all employees in manufacturing; (2) value added by manufacture; (3) salaries and wages; (4) total employed in all industry groups; and (5) population. These criteria were selected on the basis of their appropriateness and availability.

¹²Thompson, John H., "A New Method for Measuring Manufacturing," Annals of the Association of American Geographers, (Vol. 45, December, 1955), pp. 416-436.

The measurement of magnitude, or quantity of manufacturing, requires the use of numbers (1), (2), and (3). The importance, or intensity, of manufacturing in the economy uses numbers (1), (2), (4), and (5). This method permits the study of trends in an area, and also the analyzation of one criterion in relation to the others.

It is obvious that this synopsis of urban and manufacturing studies is only a selected sampling of the voluminous literature available. However, it provides a cross-section of the concepts that would relate to an urban place such as Topeka.

Description of methods, their use and justification.

At the inception of the field research it was evident that several alternative approaches and methods of analysis were possible in a study of this nature.

The classification of manufacturing in Topeka is based on the number of employees and the manufacturing groups as defined by the U. S. Census of Manufactures. These figures are readily available both in published form and through personal interview of each manufacturer in Topeka. For purposes of comparison employment figures are consistent over the past two decades. "Furthermore, the proportion of the labor force actually employed in a service is of much more direct significance to the economy of the city" ¹³

¹³Nelson, "A Service Classification of Am. Cities," p. 189.

The classification and evaluation of Topeka is impractical unless a comparison can be made to selected cities and manufacturing regions. The cities and manufacturing regions are divided into two specific categories. The first category includes those cities enclosed within a 200 mile radius of Topeka: Kansas City, Missouri and Kansas; Wichita, Kansas; Omaha and Lincoln, Nebraska; and Tulsa, Oklahoma. This permits an illustration of their relationship to Topeka. The comparison and contrast to cities of similar population indicates Topeka's physical, urban, and economic assets and liabilities. The cities selected are located in several geographic and economic regions of the country. They include: Rockford, Illinois; Trenton, New Jersey; Greensboro, North Carolina; Beaumont, Texas; and Glendale, California.

Several of the techniques and methods of classification described earlier in this chapter will be applied to the Topeka metropolitan area. The two classifications and comparative studies by Nelson, and the quantitative method of measuring manufacturing by Thompson are especially valuable. The methods employed rely on population and employment figures to a great extent. They also employ percentages and ratios which allow for a comparison to all urban areas, especially those of variable population in the Midwest-Great Plains area.

Topeka has been one of the transportation cities of

America from its early settlement. To what extent has transportation exerted an impact on the location and growth of this city? The large scale growth of the railroads, particularly the Santa Fe, has been complemented in recent times by truck transport. The railway and highway services each deserve attention as centralizing factors for attracting manufacturing establishments. Of particular interest is the time-distance relationship, especially to the expanding markets of the Great Plains, the Southwest, and the Rocky Mountains.

In preparation for the study, library research was undertaken and the data included in this investigation was collected and assembled through field work and personal interview.

Organization of the study. Chapter III describes the population characteristics and socio-economic situation with emphasis on pertinent characteristics over the last two decades. Chapter IV presents a classification of industries in Topeka. Chapter V describes and analyzes the manufacturing activity, with particular emphasis on the decade 1952-62. A description and evaluation of (1) labor force characteristics, and (2) plant facilities is presented in Chapter VI. Chapter VII examines the market area. Chapter VIII (1) describes, and (2) systematically evaluates transportation as a centralizing factor for manufacturing in Topeka. The general summary and conclusions are presented

in Chapter IX.

During the investigation, several questions arose concerning the economic future of Topeka. Among the more important are the following: What is the relationship of Topeka's economy to the nearby metropolitan area of Kansas City? What specific factors foster or impede the establishment of manufacturing in Topeka? Is Topeka a satellite of larger industrial complexes to the east? What types of manufacturing can be served best in Topeka? What is the attitude of the community toward new manufacturing establishments? What are the trends that indicate a change in the present economic situation?

Through the various analyses and comparisons, it is the further purpose of this study to determine the possibility of significant increases in manufacturing and to estimate the potential, or magnitude of this increment in the Topeka metropolitan area.

CHAPTER III

CHARACTERISTICS OF THE POPULATION

A geographer considers the people of any statistically defined segment of the earth as the most indispensable resource of that area's economy. Prior to an examination of the characteristics of occupancy and utilization of land in Topeka, it is fundamental that the present and past characteristics of the Topeka population be described.

Topeka in the perspective of Kansas and the nation. From its founding as a settlement until 1940, Topeka experienced a steady rate of growth except for the two periods (1890 and 1930) of national depression. Since 1941 the gains have been unusually great, and the 1950-60 decade shows the largest advance both in numbers and percentage since 1890 (Table I).

This recent growth rate is impressive. Where the growth rate of Topeka is compared to other cities of similar population throughout the nation in the 1950-60 decade only five showed greater percentage gains for the decade (Table II). It must be noted that only one of these five cities is located east of Topeka. This is an indication of the growth of a western market and the increasing economic importance of urban centers west of the Mississippi River.

Table I shows that Topeka is the only large city in

TABLE I

POPULATION GROWTH IN NUMBERS AND PERCENTAGE FOR THE
CITY OF TOPEKA, THE TOPEKA METROPOLITAN AREA,
KANSAS, AND THE UNITED STATES: 1860-1960

Year	City of Topeka		Topeka Metro. Area		Kansas	U. S.
	Number	Percent	Number	Percent	Percent	Percent
1960	119,484	51.6	141,286	34.0	14.3	18.4
1950	78,791	16.2	105,418	15.3	5.8	14.5
1940	67,833	5.8	91,247	7.1	-4.3	7.2
1930	64,120	28.2	85,200	23.1	6.3	16.1
1920	50,022	14.5	69,159	11.8	4.6	14.9
1910	43,684	30.0	61,874	15.2	15.0	21.0
1900	33,608	8.4	53,727	9.3	3.0	22.5
1890	31,007	100.7	49,172	69.0	43.4	23.7
1880	15,452	166.9	29,093	121.7	173.4	30.1
1870	5,790	662.8	13,121	273.5	239.9	22.6
1860	759		3,513			

Source: U. S. Census of the Population, 1960.

TABLE II

POPULATION GROWTH OF SELECTED METROPOLITAN AREAS
OF SIMILAR POPULATION, RANKED IN ORDER OF
POPULATION PERCENTAGE INCREASE, 1950-1960

Metropolitan Area	1950 Population	1960 Population	Percent Increase 1950-1960
Santa Barbara, Calif.	98,234	168,962	72.0
Amarillo, Texas	87,117	149,493	71.6
Lake Charles, La.	89,633	145,475	62.3
Lubbock, Texas	101,016	156,271	54.7
Abilene, Texas	85,495	120,377	40.8
Topeka, Kansas	105,418	141,286	34.0
Ogden, Utah	83,329	110,744	32.9
Pueblo, Colorado	90,203	118,707	31.6
Cedar Rapids, Iowa	104,264	136,899	31.3
Lexington, Ky.	100,769	131,906	30.9
Lincoln, Nebraska	119,716	155,272	29.7
Racine, Wisconsin	109,568	141,781	29.4
Green Bay, Wisconsin	98,335	125,082	27.2
Brockton, Mass.	119,758	149,458	24.8
Champaign-Urbana, Ill.	106,119	132,436	24.8

Source: Topeka-Shawnee County Regional Planning
Commission.

TABLE III

SUMMARY OF POPULATION INCREASE FOR THE TOPEKA
METROPOLITAN AREA: 1940-1960

	Births-Deaths	Totals
1940 Population		91,247
1941-50 Births	19,397	
1941-50 Deaths	-10,734	
Natural increase		8,663
Net in-migration		<u>5,508</u>
1950 Population		105,418
1951-60 Births	34,828	
1951-60 Deaths	-11,237	
Natural increase		23,591
Net in-migration		<u>12,277</u>
1960 Population		141,286

Source: Topeka-Shawnee County Regional Planning Commission.

Shawnee County. In fact, 84.5 percent of the population is in the central city as compared to 74.7 percent in 1950. In the county outside of Topeka, Rossville is the largest community with 797 people in 1960. When comparing the rate of growth for Topeka with that of the remainder of Shawnee County, the city experienced a gain of 51.6 percent in the last decade while the rest of the county declined 18.1 percent. A population shift of this type is not an uncommon feature of a progressive urban area. The rural-urban population relocation movement has been operating in Kansas, and Topeka has been a prime positive force attracting Kansas population. Mechanization on the farm, coupled with the need for service and labor personnel in the growing city has attracted young people from rural areas.

In addition to population increase as an outgrowth of in-migration, there has been the areal expansion of the city itself. Annexation of suburban areas into the central city is a major explanation of the 40,693 gain in population of Topeka between 1950-60. It has been estimated that approximately one-half of this increase was through the extension of the city limits.¹⁴ "The city's land area increased by about one-third from 1900 to 1950, whereas it

¹⁴This estimate was obtained through personal interview with members of the Topeka-Shawnee County Regional Planning Commission.

trebled its land area from 1950 to 1960."¹⁵ (Figure 3.) Also, the natural increase (ratio of births to deaths) holds to the national urban average in Topeka. Therefore, it will be assumed that significant gains in population in the immediate future may be achieved by further annexation.

Comparison to selected U. S. cities. Two other factors are utilized to define or identify trends affecting Topeka's population change: (1) comparing the percentage change in population over the last three decades for area cities within a 200 mile radius of Topeka (Figure 4); and (2) analyzing the change occurring in Topeka as contrasted to five selected cities of similar 1960 population located throughout the nation (Figure 5).

Several notable relationships are indicated by this comparison: (1) each of the cities experienced only marginal increases or decreases during the 1930's as a result of national depression and the more locally infamous "Dust Bowl" drought of 1932-35; (2) all of the cities were affected by the post-war "baby boom" of the decade 1940-50, and (3) this upward trend continued into the following ten year period, with the exception of Kansas City, Kansas; (4) cities with smaller populations in 1930 have achieved greater

¹⁵Mc Kenna, Joseph, "The Topeka Metropolitan Area - Its Political Units and Characteristics," Citizen's Pamphlet Series, No. 30, (Governmental Research Center, Univ. of Kansas, Lawrence, 1962), p. 49.

rates of percentage growth; (5) this differentiation in increment indicates the trend in decentralization of population to the smaller, newer, less congested areas; (6) the larger and older cities of the area (Omaha and Kansas City) have leveled in growth in the central city when the balance of the metropolitan area of each one is increasing rapidly. This is well illustrated by the Kansas City metropolitan area. In the decade 1950-60, Kansas City, Missouri increased its numbers by only 4.1 percent. Kansas City, Kansas declined 5.9 percent. Yet the overall metropolitan area showed an increase of 222,771 persons, or 31.9 percent. This is explained by the startling growth of such suburbs as Prairie Village and Overland Park.

National patterns of urban population concentration become evident on examination of the growth of cities of similar size outside the immediate neighborhood of Topeka: (1) older cities of the northeast such as Trenton, New Jersey are losing numbers because of the move to the suburbs and also because of the continued dispersal of large amounts of industry; for the same reasons (2) cities of the manufacturing belt such as Rockford, Illinois are enjoying numerical gains with the influx of plants and subsidiaries from the vast southern Lake Michigan complex; (3) the drive for increased manufacturing in the South has aided the rapid growth of cities such as Greensboro, North Carolina and Beaumont, Texas, although the latter has been aided

FIGURE 2

EXTENSION OF THE TOPEKA
CITY LIMITS, 1950-62

LEGEND

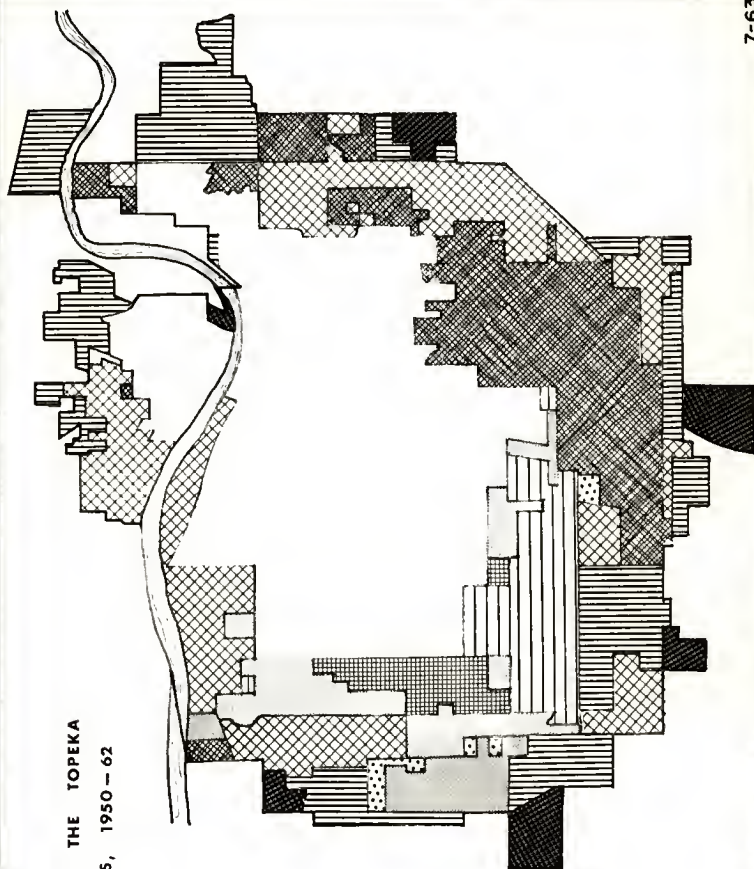


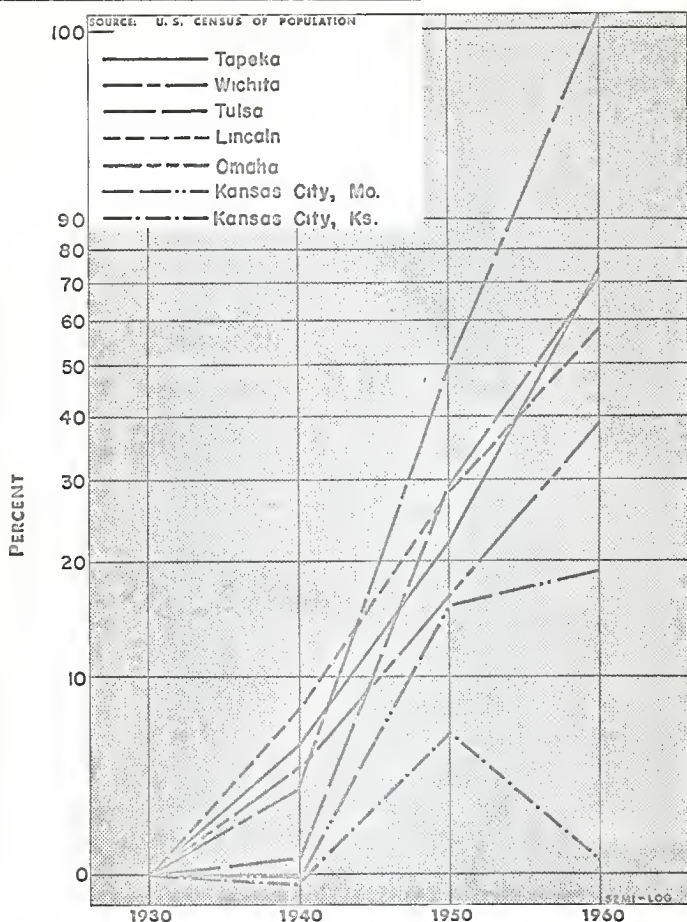
TABLE IV

POPULATION AND CHANGE IN NUMBERS FOR
CITIES WITHIN A 200 MILE RADIUS
OF TOPEKA: 1930-1960

City	1930	1940	1950	1960
Kansas City, Mo.	399,746	399,178	456,622	475,539
change	75,336	- 568	57,444	18,917
Kansas City, Ks.	121,857	121,458	129,553	121,901
change	20,680	- 399	8,095	- 7,652
Wichita, Ks.	111,110	114,966	168,279	254,698
change	38,893	3,856	53,313	86,419
Topeka, Ks.	64,120	67,833	78,791	119,484
change	14,098	3,713	10,958	40,693
Tulsa, Okla.	141,258	142,157	182,740	261,685
change	69,183	899	40,583	78,945
Lincoln, Nebr.	75,933	81,984	98,884	128,521
change	20,985	6,051	16,900	29,637
Omaha, Nebr.	214,006	223,844	251,117	301,598
change	22,405	9,838	27,273	50,481

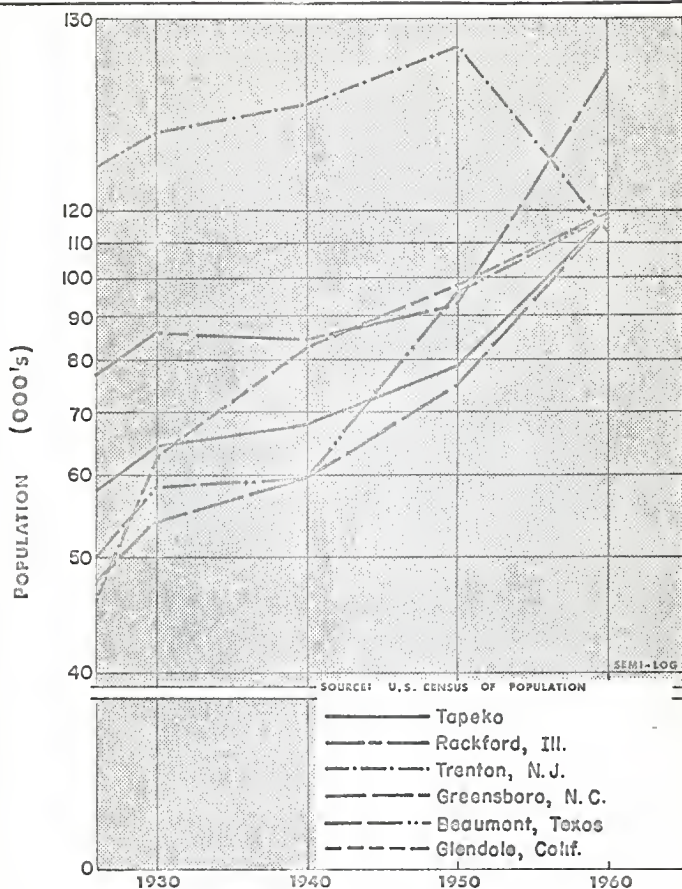
Source: U. S. Census of the Population, 1960.

FIGURE 3



Population Gain in Percent, Tapeka and
Selected Cities: 1930-1960

FIGURE 4



Population Gain in Number, Tapeka and Selected
Cities of Similar Population: 1930-1960

considerably by the important natural resources within its hinterland. Of course (4) the incorporation of Glendale, California into the Los Angeles metropolitan area has accelerated its rapid growth within the last thirty years.

How do these elements of change weight in the growth and outlook for Topeka? Although it has not experienced the "boom" period of growth that has occurred in Wichita, Topeka has kept pace and, in several cases, exceeded the rates of growth of nearby cities. These advances compare favorably with cities of all classifications and similar populations throughout the country. There is no important deterrent at the present time that may be expected to change this trend. The city is located in a region of the nation that is becoming more centrally located--for many classes of services and industry. It can draw readily on rural areas to the south, west, and north for young laborers.

Topeka is a relatively new area of growth and development with a young population. These features should help to maintain and improve the economic stability of the city. However, it must be emphasized that nearby cities also realize the same attributes and potentialities.

Population densities. The annexation of 23.6 square miles into the city in the last decade has reduced by nearly half the population density of Topeka (Table V). The figure of 3,310 per square mile is low when compared to

other urban places, and it should be pointed out that a large portion of the area recently acquired is either sparsely populated suburban fringe or uninhabited farm land.

It is evident that other cities are incorporating surrounding land into the city. Although this is done largely to answer demands for better utility and governmental services that can be provided by the central city, it also allows for inclusion of areas that are not suited for the development of housing. These spaces can be readily adapted to industrial plants. In the northeastern United States and parts of the Pacific coast, this land is either partially or completely developed. In Topeka, there is room readily available for further annexation, as well as space for the construction of facilities to serve a local hinterland as well as a western market.

Age-sex relationships. Examination of the two age-sex pyramids (Figure 6) reveals that Topeka is above the urban average of both the United States and Kansas in three age groups. The most prominent of these is the group between 20 and 29 years. This is explained, to a large extent, by the presence of Forbes Air Force Base approximately two miles south of the city limits. Although the base is not incorporated in the city, a considerable number of the military personnel reside in homes and apartments located in the city. The presence of large numbers of new families also accounts for the increase in births that began in

the early 1940's. Topeka has a 4.8 percent advantage over the U. S. urban average in the 20-29 age group. This increase also explains the 2.6 percent excess in the 0-4 age group. A majority of this segment of the population is transient and will not contribute permanently to the economic livelihood of the city.

The third group of significance is in the group 55 years and above. The state of Kansas stands above the national average in percentage of the population above 65 years of age. It is notable that Topeka ranks above Kansas in the percentage of elderly people, with an excess of 2.2 percent for the group. In part, the reason for this is the extensive medical and mental hospital facilities in the city.

Contrasting Topeka to selected cities and the U. S. average (Table VI), the following are evident: (1) Topeka has a greater percentage in the group under five years of age than the U. S., than any area city with the exception of Wichita, and the selected cities of similar population; (2) the percentage of people 21 years and older is higher than the U. S. average, but a comparison to the U. S. urban average shows a deficiency in Topeka between the ages of 30 and 54; (3) the percentage of people 65 years and older is considerably above (a) area cities, with the exception of the Kansas City metropolitan area, and (b) similar size cities, except for Trenton and Glendale; and (4) the median

age of Topeka is comparable to that of the U. S. average and is a mean for area cities. The median age of 39.4 for Glendale, California is especially notable designating it as a "retirement city".

The significance of Forbes Air Force Base. The importance of the military reservation to the population composition of Topeka has been mentioned. And, other than contributing currency to the city through retail trade, the importance of this population is limited. This study deals with manufacturing and related industries and the Air Force personnel do not, except for some clerical and office work done by their wives, contribute to these activities. Because of this, and the possible future deactivation of the base, Forbes does not warrant the attention given to Schilling Air Force Base at Salina, Kansas in an earlier study.¹⁶ It will, however, be cast in perspective in terms of a market for the manufactured products of Topeka.

Summary. Topeka has a well distributed population with definite advantages in two important young age groups. Also, sufficient numbers are present in the vital working groups. However, in the competition for new industry, cities such as Wichita and Tulsa can boast practically equal percentages in these groups, plus a considerably less number

¹⁶Quandt, Eldor C., "A Geographic-Economic Base Study of Salina, Kansas", (unpublished Master's thesis, Kansas State University, 1963).

in the age group 65 and older. Population, then, does not give Topeka an apparent advantage over other urban areas of the Great Plains in terms of attracting new forms of economic support, especially manufacturing.

TABLE V

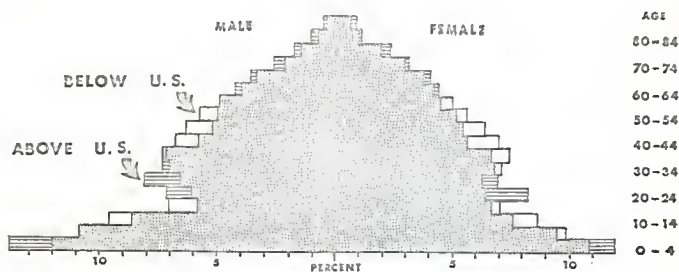
POPULATION DENSITY AND LAND AREA FOR
TOPEKA AND SELECTED CITIES:
1950 AND 1960

City	1950		1960	
	Density	Area (sq. mi.)	Density	Area (sq. mi.)
Kansas City, Mo.	5,665	80.6	3,664	129.8
Kansas City, Ks.	6,928	18.7	3,002	40.6
Wichita, Ks.	6,548	25.7	4,907	51.9
Tulsa, Okla.	6,844	26.7	5,475	47.8
Lincoln, Nebr.	4,155	23.8	5,060	25.4
Omaha, Nebr.	6,170	40.7	5,891	51.2
Topeka, Ks.	6,303	12.5	3,310	36.1
Rockford, Ill.	6,638	14.0	4,873	26.0
Trenton, N. J.	17,779	7.2	15,428	7.4
Greensboro, N. C.	4,807	18.2	2,460	48.6
Beaumont, Texas	2,994	31.4	1,683	70.8
Glendale, Calif.	4,714	20.3	4,077	29.3

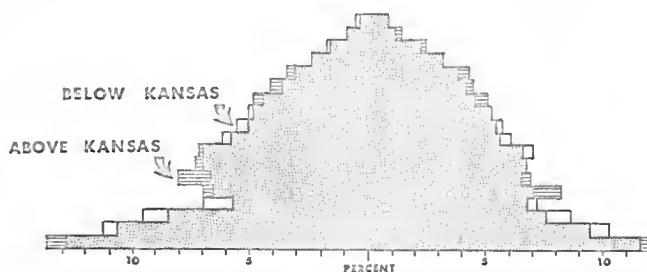
Source: U. S. Census of the Population, 1960.

FIGURE 5

SOURCE: U.S. CENSUS OF POPULATION



The Age-Sex Composition of Topeka
Compared to the U.S. Urban Average: 1960



The Age-Sex Composition of Topeka
Compared to the Kansas Urban Average: 1960

TABLE VI
DISTRIBUTION BY AGE GROUPS IN PERCENT
FOR TOPEKA, SELECTED CITIES, AND
THE UNITED STATES: 1960

City	Under 5 years (Percent)	21 years and over (Percent)	65 years and over (Percent)	Median age (Years)
Kansas City, Mo.	10.8	65.5	11.6	33.1
Kansas City, Ks.	11.7	62.3	10.9	30.7
Wichita, Ks.	12.8	59.7	7.5	27.7
Tulsa, Okla.	11.2	61.6	7.9	29.8
Lincoln, Nebr.	11.9	61.3	10.3	27.6
Omaha, Nebr.	12.2	61.1	9.8	29.4
Topeka, Ks.	12.5	62.2	10.5	29.2
Rockford, Ill.	11.5	62.0	10.3	30.8
Trenton, N. J.	9.1	67.3	11.5	34.4
Greensboro, N. C.	11.7	58.8	5.8	26.9
Beaumont, Texas	11.9	59.1	6.9	28.1
Glendale, Calif.	7.6	71.6	14.8	39.4
United States	11.3	60.3	9.2	29.5

Source: City and County Data Book, 1962.

Figure 6. Land occupancy on the north and west margins of the central business district follows a definite pattern: (a) multiple-family residential and commercial land use on the fringe of the CBD; (b) single-family residential in older neighborhoods; and (c) industrially zoned land along the river to the north.

Figure 7. Annexation on the southeast limits of Topeka has resulted in recent housing developments of significant magnitude.



Figure 6



Figure 7

Figure 8. Lower class residential homes are found on the immediate south and east fringes of the central business district and the urban renewal area.

Figure 9. Large upper class residences have been built in areas on the southwest extensions of Topeka. Many of these homes were built prior to extensive annexation throughout the 1950's.



Figure 8



Figure 9

CHAPTER IV

SURVEY OF MANUFACTURAL AND SERVICE ACTIVITIES

The relationship and balance between manufacturing and service activities in their development and present importance to Topeka presents the framework for analysis in this chapter and those that follow.

Topeka has enlarged its political boundaries to incorporate areally a larger segment of Shawnee County. The city has added substantial population through annexation as well as by natural increase and in-migration. To what extent have these increments altered the active structure of support on which the city depends for its livelihood?

The growth of industry. Until the early 1940's, Topeka's basic economic activities experienced little change in the types of industry present. Transportation continued as the dominant activity and prospered as the nation grew. The railroad industry in particular held a central position. The Santa Fe system dominated the railroad enterprises.

Governmental activities responded to changes in the population of the state and an enlargement of social responsibility. As a county seat, the state capital, and the home offices of several national enterprises, public administration employment continued to support a significant portion of the labor force. It is evident that history and

especially Cyrus Holliday's early foresight exerted a strong influence in the design of Topeka's present economic composition.

Wholesale and retail trade activities reflected the population growth of the city. The breadth of this activity was primarily local, serving the needs of an immediate hinterland. Although many transportation media were available to carry goods manufactured locally greater distances, they were not readily utilized for this purpose. Topeka did not experience substantial industrialization though its crossroads and gateway position could warrant such a development.

The construction of a hospital for the mentally ill in 1879 initiated professional services that eventually rose to national prominence. The addition of the internationally famous Menninger Foundation and the Veteran's Administration Hospital have increased the importance of health treatment and research to the economy and stature of the city.

The Second World War ushered in two significant changes on Topeka's economic scene. The construction of the Forbes Air Force Base brought personnel from all over the nation, and the Federal government and Goodyear Tire and Rubber Company collaborated on the construction of a war production plant. The plant began operation early in 1945 only two months before the war ended.

Both of these activities were considered as temporary war measures. However, they are still present. Although the base was deactivated after the war, the Korean conflict necessitated its reactivation. "Between July, 1950 and July, 1952, governmental employment rose by about 2,300 primarily as a result of the increased activity"¹⁷ Goodyear purchased the tire plant from the government in 1945 and in the late 1950's added plant facilities to increase production. This manufactural activity was the first significant step in the alteration of Topeka's economy within the last twenty-five years.

The severe flood of July, 1951 impaired progress in Topeka seriously, especially in the manufacturing activity. It brought about the permanent closing of the Morrell meat packing plant and, coupled with other shutdowns, caused manufacturing employment to decline from 7,200 in May, 1951 to 5,450 in September of that year. In 1957 the decline was reversed when E. I. Du Pont de Nemours and Company established a cellophane plant in the city. Total manufacturing employment has not yet equalled the May, 1951 figure.

At present Topeka's employment pattern still is balanced heavily toward the three original groups of activities--transportation, public administration, and professional services. Other than this, there has been little change

¹⁷Master Plan Report 3, Preliminary Land Use Plan, (The Topeka-Shawnee County Regional Planning Commission, August, 1962).

in the division of labor in the metropolitan area except for a notable drop in agricultural employment brought about by annexation and the growth of population.

Comparison of Topeka with selected cities and the nation. Comparison to other urban areas is employed again because it illustrates Topeka's economic situation relative to its size and location in the east plains area (Figure 11 and Table VII). The selected cities are those used previously with the exception of Glendale, California. The data listed is that of each city's standard metropolitan statistical area (SMSA). Inclusion of Glendale incorporates data for the much larger Los Angeles metropolitan area. Since this would distort the figures for the true pattern of Glendale's economy, it has been excluded from employment distribution in Figure 10.¹⁸

Two important generalizations became evident from an examination of the graph. The cities cluster near the same percentage of total employment in each group, except in manufacturing. This is especially notable in agriculture, construction, trade, and finance activities. Secondly, the variation in the actual population of the cities has little

¹⁸ An explanation is required in respect to total percentages. The sum of U. S. urban averages listed in Figure 11 is 95 percent because forestry and fishing, mining activities, and industries not reporting are excluded. In many of the cities these activities are either of minor importance or absent. The mining group and the percentage of industry not reporting are presented in Table VII.

effect apparently on the distribution of the labor force. Location and history appear to be more powerful determinants of a city's activity.

Agriculture. Although all of the cities are above the U. S. average for employment in agriculture, the area cities are higher. Only Lincoln (3.8 percent) and Omaha (3.4 percent) exceed Topeka (2.5 percent). Agricultural employment constitutes a declining portion of the urban picture because of marked population increments and the areal spread of the central city that now incorporates more farm land. Also, the accelerated mechanization of manual labor processes has lessened the demand for rural dwellers. The Topeka manufactural economy is in transition from an agricultural resource base to a more diversified economy. The change is indicated in the decline of 16.2 percent in the number of agricultural workers from 1950 to 1960.

Construction. Among the area cities, Topeka has an advantage in percentage of its labor force employed in construction activities. Two factors are responsible for this: (1) the actual physical growth of the city; and (2) an active program of urban renewal to the north and east of the central business district. Lincoln, which reflects similar locational features, is similar to Topeka in this respect. The high percentage in Greensboro (6.1 percent) and Beaumont (7.7 percent) is similar and indicates the expansion

TABLE VII

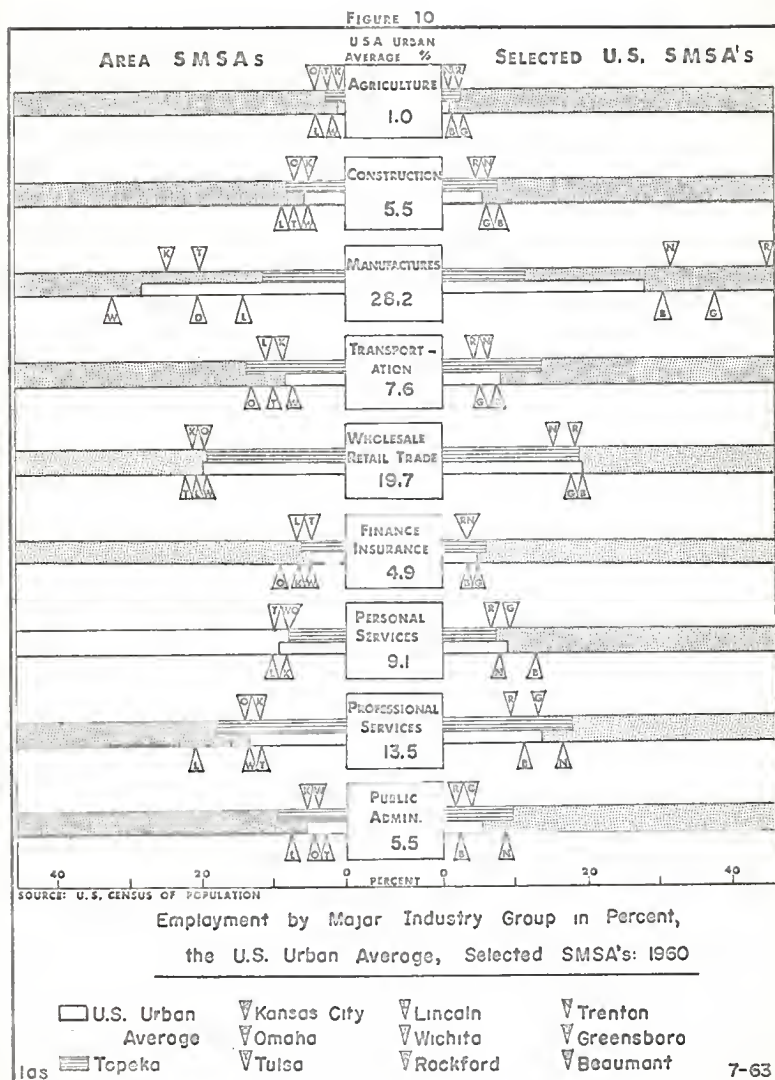
EMPLOYMENT BY MAJOR INDUSTRY GROUP IN PERCENT FOR SELECTED SMSA'S
AND THE UNITED STATES URBAN AVERAGE: 1960

SMSA	Agr.	Min- ing	Constr.	Mfg.	Transp. Comm. Util.	Whole- Retail Trade	Finan. Insur. R.Est.	Per- sonal Serv.	Profes- sional Serv.	Pub. Adm.
U. S. Urban	1.0	0.6	5.5	28.2	7.6	19.7	4.9	9.1	13.5	5.5
Kansas City	1.2	0.2	5.2	24.6	10.8	20.8	5.8	7.9	12.0	5.2
Wichita	1.7	1.2	4.9	32.4	6.3	19.8	4.8	7.7	13.2	4.3
Tulsa	2.1	5.8	6.4	20.1	9.9	21.4	4.7	9.4	11.9	3.1
Omaha- Council Bluffs	3.4	0.1	6.5	20.5	12.8	20.1	7.3	7.6	13.6	4.4
Lincoln	3.8	a	7.3	13.9	8.3	20.5	6.1	9.8	20.6	7.1
Topeka	2.5	a	7.5	11.5	13.6	19.4	5.3	7.6	17.9	9.6
Rockford	2.3	a	4.7	45.9	4.4	17.8	3.2	6.7	9.8	2.3
Trenton	1.3	a	6.1	31.9	5.4	14.8	3.1	8.2	16.4	8.5
Greensboro- High Point	2.9	a	6.1	37.6	4.6	17.9	4.6	9.3	13.0	3.2
Beaumont- Port Arthur	1.6	1.8	7.7	30.6	7.1	19.5	3.3	12.9	11.2	2.6
Glendale (b)	0.6	a	4.6	28.1	7.1	18.2	7.6	8.3	15.8	4.6

a - Percentage is insignificant (less than 0.1 percent).

b - Percentages for the city of Glendale only.

Source: U. S. Census of the Population, 1960.



of industrial activity in the South.

Manufacturing. The most apparent feature is the obvious dissimilarity between area cities. Wichita is above the national average because of an outstanding amount of commercial and military aircraft manufacture. The plants operating under government contract are located in Wichita because of Federal decentralization of the industry during World War II. The other area cities, especially Topeka, lack manufacturing activity, primarily because of their location away from early industrial development in the northeastern United States.

Transportation. The intermediate position of Great Plains cities establishes them as transport centers. Except for Wichita all area cities stand above the national average in this employment category. Topeka has the highest percentage. Transportation employment is one of the three outstanding groups of Topeka's labor pattern. The manufacturing cities used in the comparison stand below the national urban average in this activity.

Trade. All of the cities approximate the national average in this group. The one outstanding feature is the consistently high level of trade employment in the economy of each of the area cities. A strong tie exists between the transportation and trade activities.

Finance. Once again, the area cities are notable as a group in this employment category. Only Tulsa falls below

the national average and then only slightly. Topeka maintains a large number of banking facilities and brokerage firms as a center for small towns and rural areas in eastern Kansas.

Professional services. In this employment category the dominance of Lincoln (20.6 percent) and Topeka (17.9 percent) is notable. Lincoln has extensive educational facilities and Topeka has educational and large scale hospital institutions present. This is a vital employment group for Topeka. It reflects the high level of education and an above average standard of living present in the city. It is the second group of significance in Topeka.

Public administration. The three state capitals are outstanding in this employment group: Topeka (9.6 percent); Trenton (8.5 percent); and Lincoln (7.1 percent). In Topeka the percentage is 4.1 above the national average, denoting governmental activity as the third group of significance.

From this synopsis the impact of history and location on Topeka are placed in useful perspective. The early drive of Cyrus Holliday and the changing economic pattern of the nation have forged an indelible mark on Topeka that will be difficult to alter.

Application of a geographic urban classification.

Howard J. Nelson classified Topeka as dominant in three service groups: (1) transportation; (2) public administration;

and (3) finance.¹⁹ The city is at least one standard deviation above the average for urban concentrations of over 10,000 population in these categories. The method is effective and represents a true conception of Topeka's economic structure. But it opens the question concerning activities that are slightly less than, but significantly near, the required deviation above the norm.

Finance, with 5.3 percent of the labor force of Topeka is well above the figure of 4.4 percent computed by Nelson. But professional services, which totaled 14.55 percent in 1950 (17.9 percent in 1960) is just below the 16.98 percent required to list it as one of the city's prominent activities. It is neglected, even though a larger percentage of the labor force is engaged in professional services than in finance.

Further, Wichita was designated by Nelson as prominent for finance only. However, in 1960 Wichita employed 32.4 percent of its labor force in manufacturing, far below the 43.11 percent necessary for Nelson to classify manufacturing as a principal activity. In every other activity Wichita is below the 1960 U. S. urban average, except for a 0.4 percent plurality above Nelson's figure of 4.4 percent for finance. Is finance more important to this city's

¹⁹Nelson, "A Service Classification of American Cities."

support than manufacturing?

The method is statistically valid. However, in terms of the actual situation there is need for further comparison and computation. The value of the average here is questionable. The consideration of several factors in analysis (the multiple-criteria method) presents a clearer and more definitive basis for classification of urban activity.

The past and present employment pattern of Topeka.

The population increase of 1950-60 in Topeka did increase the total numbers in the labor force from 43,892 to 50,878. However, the percentage of the population in the labor force decreased from 41.6 percent to 36.0 percent (Table VIII). The percentage figure has been affected by the increase in the number of persons under 14 years of age. This group grew more than any other, from 22.9 percent of the population in 1950 to 29.4 percent in 1960.

The service industries registered the largest gains in the period 1940-60 (Table IX). Notable declines were registered in agriculture and the percentage of employees in manufacturing between 1950-60. However, the downward trend should continue only in agriculture. As an urban area increases its total numbers, there is a greater possibility for diversification in industry. There is a limit to potential growth in Topeka, but the potential for diversification in manufacturing, wholesale and retail trade, and

the service industries is good.

At the present time Topeka's labor force is predominantly white collar (Table X). In fact, the professional, technical, sales and clerical occupations registered almost three-fifths of the total employment gain for the metropolitan area between 1950 and 1960.

This pattern of employment should continue in Topeka for the following reasons: (1) the city was originally oriented to these groups of activities and the pattern cannot be altered quickly; (2) the employment structure relies on this type of economic activity; (3) the location of the city tends to maintain or bolster the predominant activities; (4) significant changes in the population composition of Topeka alone will have little effect on attracting new manufacturers to the city. But this growth does indicate the expansion of facilities for transportation, public administration, and the professional services.

TABLE VIII

LABOR FORCE AND POPULATION IN THE TOPEKA
METROPOLITAN AREA: 1950 AND 1960

	1950		1960	
	Number of persons	Percent of total popula- tion	Number of persons	Percent of total popula- tion
Total in labor force	44,650	42.4	58,189	41.2
In military service	116	0.1	5,514	3.9
Civilian labor force	44,534	42.3	52,675	37.3
Employed	43,235	41.0	50,878	36.0
Unemployed	1,299	1.3	1,758	1.3
Total not in labor force	60,768	57.6	83,097	58.8
Inmates of institutions	2,065	1.9	3,115	2.2
Under 14 years of age	24,163	22.9	41,556	29.4
All others	34,540	32.8	38,426	27.2
Total population	105,418	100.0	141,286	100.0

Source: Topeka-Shawnee County Regional Planning Commission.

TABLE IX
EMPLOYMENT BY MAJOR INDUSTRY GROUP IN THE
TOPEKA METROPOLITAN AREA: 1940-1960

Industry	Number employed			Percent of total employed		Increase 1940-60	Percent of total increase
	1940	1950	1960	1940	1950		
Agriculture	2,549	2,379	1,260	8.0	5.4	2.5	(-6.8)
Mining	113	68	54	0.4	0.2	0.1	(-0.3)
Construction	1,923	3,092	3,815	6.0	7.1	7.5	10.0
Manufacturing	4,065	6,021	5,836	12.8	13.7	11.5	9.3
Transportation	4,987	6,715	6,925	15.6	15.3	13.6	10.2
Wholesale Trade	1,204	1,806	1,778	3.8	4.1	3.5	3.1
Retail Trade	5,454	7,222	8,099	17.1	16.5	15.9	13.9
Finance	1,581	1,996	2,688	5.0	4.6	5.3	5.8
Personal Services	3,817	2,449	3,857	12.0	5.6	7.6	0.2
Entertainment	231	442	273	0.7	1.0	0.5	0.2
Professional Serv.	2,966	6,386	8,818	9.3	14.6	17.4	30.8
Public Admin.	2,471	3,817	4,858	7.8	8.7	9.6	12.6
Not reporting	496	507	2,599	1.6	1.2	5.1	11.1

Source: U. S. Census of the Population, 1940, 1950, 1960.

TABLE X

EMPLOYMENT BY MAJOR OCCUPATIONAL GROUP, TOPEKA
METROPOLITAN AREA: 1950 AND 1960

Occupation	Numbers		Percent		Increase	
	1950	1960	1950	1960	Numbers	Percent
Professional, Technical and Kindred Workers	5,081	6,984	11.58	13.73	1,903	27.2
Managers, Officials and Proprietors	5,653	5,515	12.88	10.84	(-138)	(-2.0)
Sales, Clerical and Kindred Workers	12,356	14,507	28.15	28.51	2,151	30.8
Craftsmen, Foremen, and Kindred Workers	6,070	6,606	13.83	12.98	536	7.7
Operatives (Factory Workers)	5,825	5,864	13.27	11.53	39	0.6
Private Household Workers	827	1,102	1.88	2.17	275	3.9
Service Workers (except above)	4,429	4,952	10.09	9.73	523	7.5
Laborers (including Farm)	3,184	2,479	7.17	4.87	(-669)	(-9.6)
Occupations not reporting	<u>503</u>	<u>2,869</u>	<u>1.15</u>	<u>5.64</u>	<u>2,366</u>	<u>33.2</u>
TOTALS	43,892	50,878	100.00	100.00	6,986	100.0

Source: Topeka-Shawnee County Regional Planning Commission.

Figure 11. The effect of large population increments is noted in the construction of numerous new trade and service facilities on Kansas Avenue and throughout Topeka's central business district.

Figure 12. The importance of the transportation industry to Topeka's economic support is illustrated by the extensive repair and maintenance shops and yards of the Santa Fe Railroad.



Figure 11



Figure 12

Figure 13. Further evidence of the Santa Fe's important role in the economy of Topeka is the railroad's ten-story eastern divisional headquarters, the largest privately owned office building in the city.

Figure 14. The presence of the State Capitol, accompanied by various local and national offices has made Topeka outstanding in the percentage of its labor force employed in public administration.



Figure 14



Figure 13

CHAPTER V

ANALYSIS OF MANUFACTURING ACTIVITY

The two preceding chapters have surveyed the general socio-economic conditions, the historical evolution, and the relation to the manufactural geography of Topeka. The information presents the results of the field research and the collected data derived from personal interviews. Employment and population data have been obtained from various census references. The analysis of these resource materials has proven an effective methodology for investigation and appraisal of past and present manufacturing activity in Topeka.

The procedure and results of the survey. A list of 221 manufacturing and associated industrial establishments was compiled from directories provided by the Economic Development Commission and the Topeka Chamber of Commerce. At each of these establishments a responsible spokesman was interviewed and asked the following questions:

- (1) Exactly what is your operation and final product?
- (2) What is the nature of your customer (wholesaler, retailer, processor, etc.)? Where is he located?
- (3) What is the total employment? Production workers?

(4) Why was Topeka selected as the site of the firm?

The preliminary questions determined if the establishment complied with the definition of a manufacturer as stated by the U. S. Census of Manufacturers.²⁰ The investigation isolated 127 establishments that conformed to the requirements.

The formal interview schedule was applied to 24 of these establishments (Appendix A). The sample group of 24 establishments interviewed in detail included a representative selection of types and sizes of manufacturing enterprises in the size-group relationship that characterizes the pattern of manufacturing activity in Topeka (Table XI).

Four size-group categories were identified and include the following predominant type of establishments. Food and kindred products have always been important to the city. Since Topeka is located on the border between the corn belt and the wheat and beef cattle region, it has filled a role as a market, distributor, and manufacturer of commodities from the agricultural resource base. Many companies in this category were started fifty to seventy-five years ago and have grown to serve national markets. Seymour Foods, for example, was started sixty-five years ago by three local merchants. Although a local concern

²⁰U. S. Bureau of the Census, Census of Manufacturers: 1958. Vol. III, Area Statistics. (Washington: Government Printing Office, 1959), p. xiii.

originally, continued research and opportunity during the Second World War opened national and foreign markets for the dried egg products. A new phase of development was initiated with the perfection of an egg breaking machine which now supplements the corporation's sales.

The largest category numerically is composed of 32 industries engaged in printing and publishing. However, 22 of these are "bedroom shops."²¹ The numerical predominance of this group is explained by two factors: (1) the extensive market for printing work for other service activities in Topeka; and (2) the desire for self enterprise by individual craftsmen wanting to start their own business.

An excellent example of a large printing organization is the Hall Lithographing Company. In 1888 the Santa Fe Railroad encouraged this small company to move to Topeka to satisfy the growing needs of the railroad for printed matter. Originally, this was the extent of Hall's trade. At present, however, only about 30 percent is oriented to the local market. Of the remainder, 30 percent is the printing of government documents destined for nationwide distribution while 40 percent is centered in Kansas and surrounding states.

²¹Printers apply the term to part-time or full-time shops located in the owner's home or garage and operated by two or three employees.

Two examples will illustrate the small, individually operated shop that accounts numerically for two-thirds of the printers and publishers. Floyd Burres' print shop is located in the central business district in a basement below a bindery. His wife is the only assistant; job orders are restricted to small custom work. Although Burres has lived in Topeka most of his life, he has no apparent desire to increase the size of the operation since he believes that he has enough work to "make a living."

Wedeking Printing is a one-man shop located behind an office building on the fringe of the CBD. As a former employee of Hall Lithographing, Wedeking became dissatisfied and started his own operation. He expects to expand and claims that business warrants the increase.

The larger printing plants in Topeka are somewhat dismayed at the increasing number of small shops. What is significant is the number of experienced and dependable tradesmen who are leaving to undertake enterprises of their own.

Stone, clay, and glass products comprise the third group, with thirteen establishments. For the most part, these operations utilize the available natural resources of the Topeka area. Eight firms either extract sand from the Kansas River or mine limestone from the surrounding hills. These plants complement the expanding building activity in the city. The remaining five establishments are

concerned with glass, either for building purposes or for fine prescription grinding of eye glass lenses.

The fourth notable group centers on metals fabrication. These are local concerns interested primarily in markets in the eastern third of Kansas. There are several notable exceptions. Cable Spinning Equipment Company manufactures telephone and telegraph maintenance equipment for a world-wide market. Its product is unique and there are few fabricators dealing in this type of manufacturing in the nation. Still another exception is a relative newcomer to the Topeka scene. Hydro-Flex Corporation makes flexible hosing for heating units. Hydro-Flex moved to Topeka from Spokane, Washington seeking improved access to both the raw material and the greater market base of this enterprise. However, the ownership has expressed reservations on the choice of the Topeka location and with the industrial situation in the city. The company is contemplating relocation further east into the manufacturing belt.

Other than fabricated metals, there is almost a complete absence of durable product manufacturers in Topeka. The lack of primary metals, petroleum and coal products, and machinery is explained by distance from raw material sources and the competition of larger heavy industrial centers to the east at Kansas City, Omaha, St. Louis, and Chicago. The cost involved in transporting and processing the raw materials in Topeka is no less, thus giving no more

advantage than importing the finished product from these cities. Moreover, the rapid increase in the population of Topeka has developed a local market of size only recently capable of supporting even a small amount of heavy industry.

The past growth of manufacturing. There has not been a substantial growth in manufacturing employment and production in the Topeka metropolitan area during the last twenty-five years. Both the number of establishments and employees confirm this fact (Tables XII and XIII).

Between 1937 and 1963 there has been a gain of nineteen establishments, or only 14 percent. In almost the same period (1940-60) there has been a gain of over 49 percent in the population. There are several reasons for the difference: (1) the growing labor force has been absorbed by more prominent services; (2) the large plants are growing successfully and require labor that does not have to be highly skilled because of automated processes; (3) the majority of the establishments are small and the mortality rate in this group is much higher and results in a rapid turnover with little actual gain; and (4) there is little attraction for manufacturers from other sections of the country seeking a new location for their facilities.

The continued dominance of food and kindred products and printing and publishing underscores the minor changes in the character and group of manufacturing present in the

city. The most recent surveys indicate a moderate trend toward diversification. Losses of industries and employment in the two leading groups have been absorbed to some extent by gains in stone, clay, and glass products and fabricated metals. The area and population growth of the city and metropolitan area in public and private services and professional activities supports a large segment of the additional numbers of food and consumer product manufacturing.

Factors that favor manufacturing growth. Each manufacturer interviewed in the Topeka survey was asked: What advantages does Topeka offer that will foster the location of manufacturing in the city? The results indicate several interesting concepts (Figure 17). The spokesmen for the industries were requested to select the more important advantages to their national and regional location in Topeka and rank them in order. Several did not respond and were omitted from the tabulation.

Each of the eleven respondents who rated transportation as an advantage went on to add voluntarily that any number of cities in the Great Plains were equipped equally in this respect. Thus, while it is an attribute, the transportation systems radiating from Topeka do not present a distinct advantage superior to other area cities.

Yet the distribution of products is an outstanding component for organizations already participating in Topeka's

manufacturing situation. Twenty-three respondents regarded this factor as notable, fourteen of these listed it as most important. Two establishments which value distributional facilities as important rate special consideration because of their contributions to the economy in employment, income, and volume of traffic generated. Goodyear Tire and Rubber Company and Dupont Chemical Company are the only two national corporations to select Topeka as the site of new establishments within the last twenty-five years. Each concern selected the city because of its central geographic location and distribution access via railroad and highway networks to the western United States. Manufacturing locations and management centers to the east are too distant to respond immediately to present markets or to fulfill requirements for larger future markets. The Topeka Goodyear plant distributes a variety of products to wholesale and retail outlets in all large cities of the nation but concentrates its efforts primarily to the Great Plains. Tires are sent to warehouses that distribute to the retailer. DuPont manufactures a diversified range of cellophane products for distribution as packaging materials to manufacturers and processors of food products in the western United States. Examples of the customers include bakeries and meat packers.

Power source availability, both fuel and electricity in large and dependable supply, were evaluated as of some importance to almost all of the manufacturers. To Goodyear

and DuPont, however, these resources were among the prime attributes of Topeka. The site of the DuPont plant at Tecumseh, four miles east of the central city, is only a few hundred yards from the main plant of Kansas Power and Light.

Few industries beside the grain mills cited freight rates as giving a distinct advantage to location in Topeka. Seaboard Allied Milling Company stated that Topeka offered the most favorable milling-in-transit rates in the eastern half of Kansas. Although this is of singular importance to this industry, it is no significant advantage to manufacturing and processing concerns utilizing non-agricultural raw materials.

As a favorable location factor, raw material availability was cited twenty-two times. The food processors and firms that prepare concrete materials and cut stone for construction purposes are most often affected by this factor. With increased manufactural diversification the dependency on this factor may be reduced.

The depth of sands, averaging 50 to 60 feet, in the bed of the Kansas river provide an excellent aquifer. In fact, the entire river valley is noted for the tremendous volume of potable water available for all purposes. DuPont requires large amounts of fresh water for its operation and an available supply was the third factor influencing its selection of Topeka. Other firms, including several food

processors also consider water important to their operations.

The most outstanding of other locational factors cited frequently was the concept of "opportunity." Since "opportunity" is based more often on subjective estimates of a market and the individual judgment of the businessmen, it is exceedingly difficult to classify or define with precision. Included here are firms that were started or purchased because of a favorable situation that arose in Topeka. Also included are those manufacturing establishments that were started soon after settlement of the site and see no reason or advantage to location in Topeka other than the fact that they have always been there and business has been good.

Although the number of establishments and employees in manufacturing have changed little in several years, nonetheless, it is evident that diversification is occurring. The greatest lament of the businessman is the tax structure which he considers an unfavorable factor when regarded by potential industries contemplating location in Topeka. Perhaps an adjustment of the schedule would seem necessary, in addition to an improvement of several other factors that will attract new facilities.

Manufacturing in Topeka in respect to other cities.

The position of manufacturing employment in the Topeka economy can be illustrated further by comparing Topeka's situation

to similar situations in other U. S. cities. Two techniques are employed for this comparison: (1) the scatter diagram presents (a) a comparison of Topeka to area cities, (b) a comparison to other selected U. S. cities, (c) a correlation between all of these cities by manufacturing employment and total population; and (2) a multiple-criteria method of measuring manufacturing in a political unit for comparison to other similar divisions. The latter method was developed by John H. Thompson and has been described earlier in the study (Chapter II).

The scatter diagram (Figure 15) indicates no apparent correlation between total manufacturing employment among area cities or with those of similar population. It is to be expected that the amount of manufacturing in Topeka would be proportional to that of larger cities such as Kansas City and Omaha; or the more densely populated regions of New Jersey, northern Illinois, and southern California; or the cities having access to valuable raw materials such as Greensboro and Beaumont. But it is interesting to note that all of the area cities with a population larger than Topeka have a higher percentage of their labor force employed in manufacturing. Topeka's population has been growing rapidly in the last twenty years which would seem to allow for an increase in manufacturing.

Thompson's method measures magnitude, the quantity or size of the manufacturing activity, and intensity, the

importance of manufacturing in an area's economy.²² The figures computed are compared with other specific areas to provide a basis for determining the significance of the activity. The criteria and formulas used are as follows:

- E = Number of employees in manufacturing in the area to be rated.
- Et = Average of total employment in manufacturing for the eleven SMSA's considered.
- S = Salaries and wages paid in dollars in the area to be rated.
- St = Average of total salaries and wages paid in dollars for the eleven SMSA's.
- V = Value added by manufacture in dollars in the area to be rated.
- Vt = Average of total value added by manufacture in dollars for the eleven SMSA's.
- T = Employment in all industry groups for the area to be rated.
- Tp = Percentage of employment in all industry groups employed in manufacturing for the eleven SMSA's.
- P = Total population in the area to be rated.
- Pp = Percentage of the total population employed in manufacturing for the eleven SMSA's.
- At = Value added by manufacture in dollars divided by the total population for the eleven SMSA's.

²²Thompson, loc. cit.

$$\text{Magnitude}_1 = \frac{E}{Et} \times 100 \qquad \text{Magnitude}_2 = \frac{S}{St} \times 100$$

$$\text{Magnitude}_3 = \frac{V}{Vt} \times 100$$

$$\text{Multiple-criteria magnitude rating} = \frac{M_1 + M_2 + M_3}{3}$$

$$\text{Intensity}_1 = \frac{E}{T(Tp)} \times 100 \qquad \text{Intensity}_2 = \frac{S}{P(Pp)} \times 100$$

$$\text{Intensity}_3 = \frac{V}{P(At)} \times 100$$

$$\text{Multiple-criteria intensity rating} = \frac{I_1 + I_2 + I_3}{3}$$

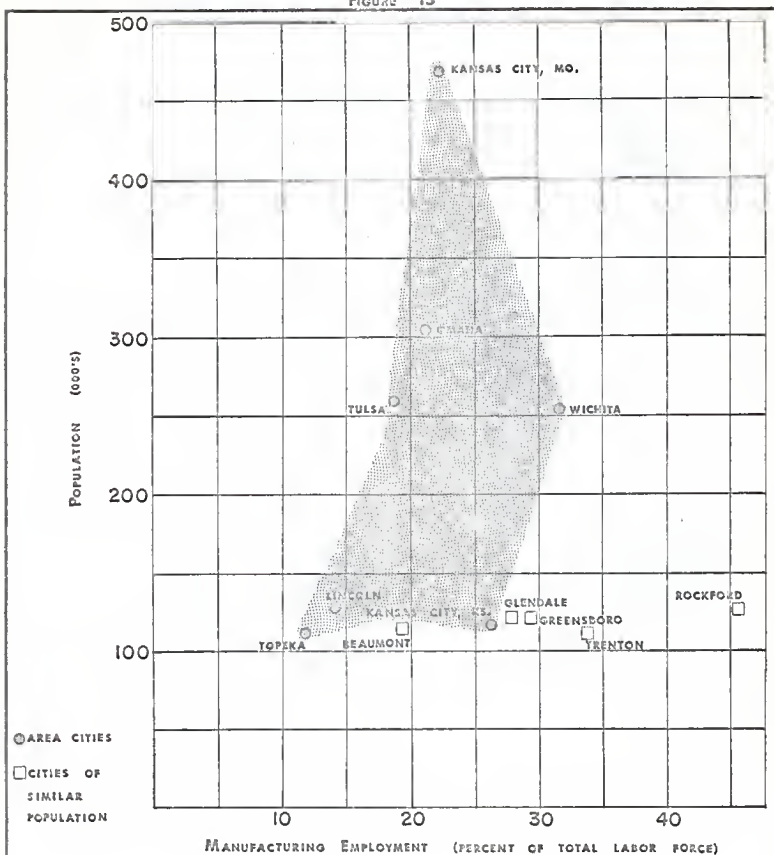
The political unit employed in this problem analysis was the SMSA. Eleven SMSA's were selected and provided a good basis for analysis because of their varied geographic locations, population characteristics, and important economic activities (Figure 16). The results are placed in classes to further classification: A - J for magnitude; I - X for intensity.

The analysis of multiple-criteria lends further support to the validity of the other methods applied in this analysis. The results present a realistic view of the situation in manufacturing in Topeka. Finally, trends evolving in cities of the Great Plains are identified further and provide a more complete basis for estimating the future development of the area.

Neither the numerical quantity of establishments or employment in the manufacturing activities in Topeka are alone of significance. Again, the larger cities of the area

appear to retain an advantage over Topeka in these groups of activities. The similarity between Lincoln, Nebraska and Topeka is notable. The activities of the two are quite similar, and manufacturing is lacking in Lincoln also. With a higher degree of industrialization in nearby SMSA's (Omaha, Kansas City, Tulsa, and Wichita) manufacturing would tend to be drawn more toward these centers. Capital cities with intermediate positions (Topeka and Lincoln) will thrive more on trade and service industries.

FIGURE 15



Correlation of Manufacturing Employment to
Total Population in Selected U.S. Cities: 1960

FIGURE 16

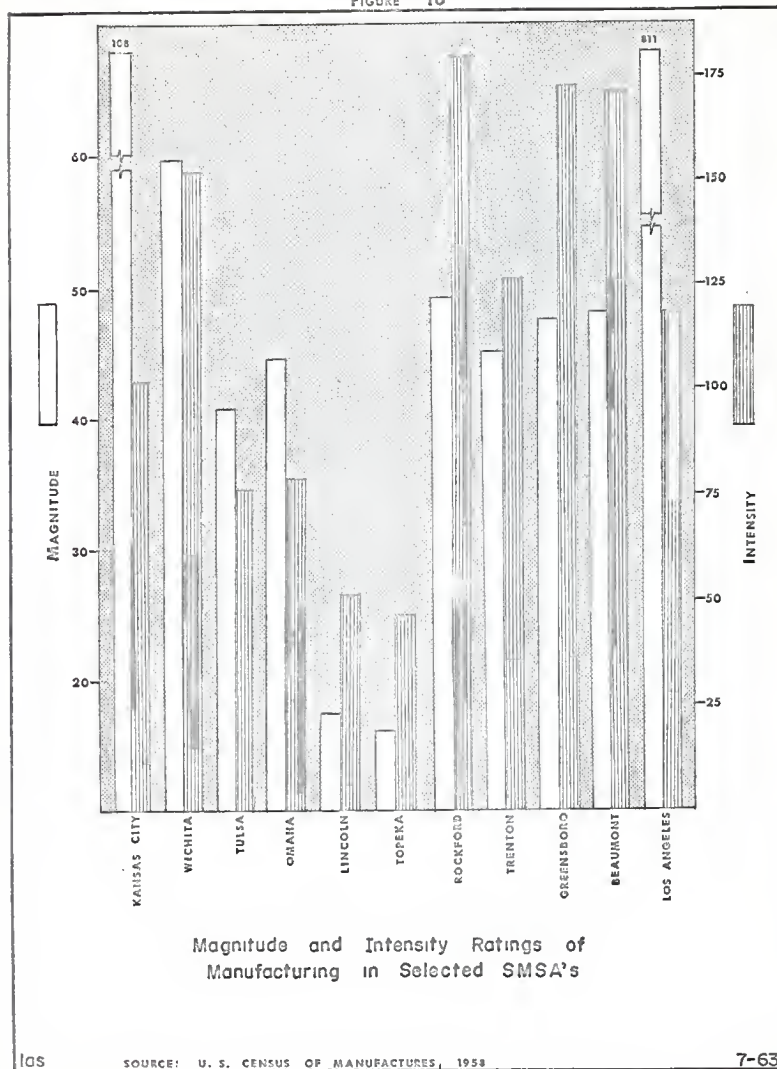
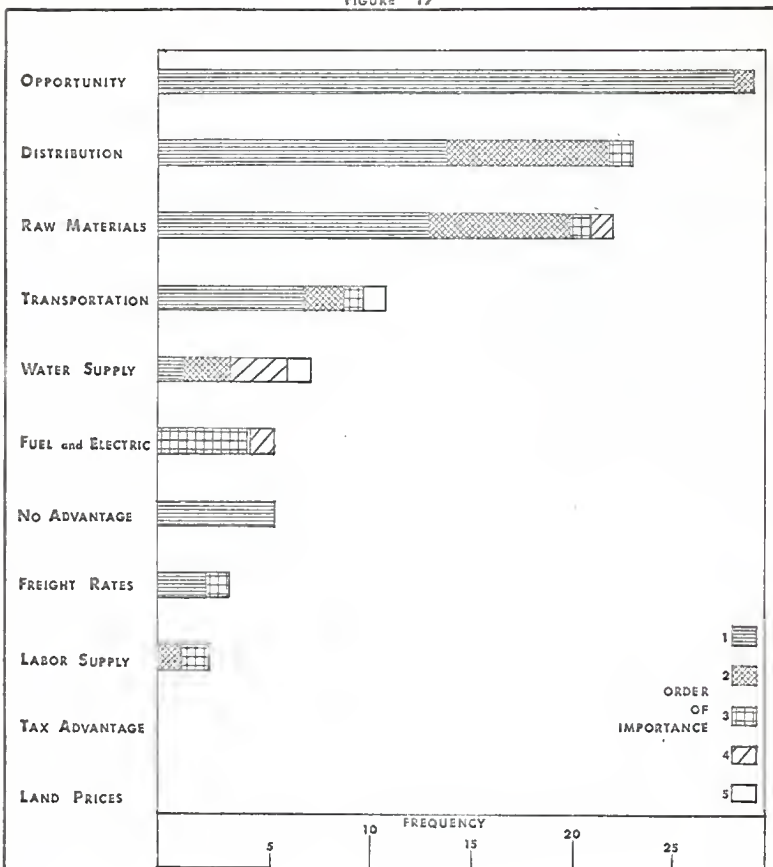


FIGURE 17



Factors Fastening Manufacturing Development
Ranked by Frequency of Selection

TABLE XI

DISTRIBUTION OF MANUFACTURING ESTABLISHMENTS BY PRODUCT
AND NUMBER OF EMPLOYEES; THE TOPEKA
METROPOLITAN AREA: 1963

Product	Number of employees				Establish- ment Total
	1-19	20-99	100-249	250-up	
Food & kindred	12	10	4		26
Tobacco					
Textile mills		1			1
Apparel & related	2				2
Lumber & wood	6			1	7
Furniture & fixtures	1	1			2
Paper & allied	1			1	2
Printing & publish.	22	7	2	2	33
Chemicals & allied	3	1			4
Petroleum & coal					
Rubber & plastic				1	1
Leather & allied					
Stone, clay, glass	7	5	1		13
Primary metals					
Fabricated metals	11	9	1		21
Machinery, ex. elec.	1		1		2
Electrical mach.	2	1			3
Transport. equip.				1	1
Instruments & rela.					
Miscellaneous	8	1	-	-	9
Total establishments	76	36	9	6	127

Source: Field research and personnel interview.

TABLE XII

INCREASE IN THE NUMBER OF ESTABLISHMENTS
BY NUMBER OF EMPLOYEES; TOPEKA
METROPOLITAN AREA: 1937-63

Year	Number of employees				Total	Dominant groups
	1-19	20-99	100-249	250-up		
1937					108 ^a	Food & kind. (43) ^b Print. & publ. (25)
1947	85	25	9 ^c		119	Food & kind. (39) Print. & publ. (34)
1954	94	33	10 ^c		137	Food & kind. (45) Print. & publ. (37) Fabr. metals (12)
1958	97	27	8	5	137	Food & kind. (40) Print. & publ. (43) Machinery (11)
1963 ^d	76	36	9	6	127	Food & kind. (26) Print. & publ. (32) Stone, clay, glass (13) Fabr. metals (21)

^aDivision by number of employees not available.

^bFigure in parenthesis denotes number of establishments.

^cDivision above 100 employees not available.

^dTotals acquired by Stjernberg during research.

Source: U. S. Census of Manufactures: 1937, 1947, 1954, 1958.

TABLE XIII

DIVISION OF MANUFACTURING EMPLOYMENT BY PRODUCT;
TOPEKA METROPOLITAN AREA: 1940-1960

Product	1940	1950	1960
Furniture and wood	168	212	77
Primary metals	124 ^a	96	64
Fabricated metals	128 ^b	134	162
Machinery, except electrical	119	209	230
Electrical machinery	c	40	48
Motor vehicles & equipment	11	26	3
Transportation equipment	7	12	16
Other durable goods	d	103	168
Food and kindred products	1,905	2,348	1,360
Textile mills	6	22	7
Apparel and related products	57	53	52
Printing and publishing	1,382	1,697	1,736
Chemical and allied products	29	74	416
Other nondurable goods	63	905	1,497
Not specified	86	29	d
Total employed	4,065	6,021	5,836

^aListed as "iron and steel and their products" in 1940.

^bListed as "non-ferrous metals and their products" in 1940.

^cListed under machinery in 1940.

^dNot available.

Source: U. S. Census of the Population: 1940, 1950, 1960.

Figure 18. The Goodyear production plant is already the largest manufacturing operation in the Topeka metropolitan area and will expand facilities within two years to include a warehouse that will eliminate the necessity of transporting tires to Kansas City for storage.

Figure 19. The DuPont cellophane plant was constructed at Tecumseh for a number of important reasons: (a) accessible fuel and electricity; (b) excellent water supply; (c) dependable labor supply; and (d) distribution to the western market.



Figure 18



Figure 19

Figure 20. The manufacture of freight cars and parts complements repair facilities at the Santa Fe shops. Production has averaged approximately 1,000 cars annually for the past 15 years.

(Courtesy of the Santa Fe Railroad.)

Figure 21. The abundance of sand in the Kansas River has fostered the development of several sand grading and ready-mix concrete operations along the valley.



Figure 20



Figure 21

CHAPTER VI

THE LABOR FORCE AND PLANT FACILITIES

Among the specific elements in the Topeka situation rated by respondents to the interview schedule as of importance to their location in Topeka were the site condition, the metropolitan location, and attendant facilities, and the character of the labor force--source, skills, education, and income. The two categories--site and labor force--operate independently in the location of an industry. Although they appear unrelated, they are indispensable elements in the factory operation and essential to the successful production of goods. Each of these factors reflects the local accidents of site conditions and labor characteristics.

The source of the labor force. The source of Topeka's working population has remained consistent during the last twenty-five years. Each of the firms responding to the interview schedule indicated that over 90 percent of the wage earners were born or have resided in Topeka for a number of years. Several factors that were cited more frequently as responsible for this pattern are: (1) established family firms have made it a practice frequently to favor the hiring of sons and daughters of reliable workers with the company a number of years; (2) several company spokesmen indicated that as a company policy they are reluctant to hire persons

from outside the area; (3) a majority of the rural-urban migrants and transients from the Kansas and Topeka hinterland who may have migrated to the city prefer larger nearby cities when they seek industrial employment; and (4) labor demands in Topeka manufacturing activities have never been so great that the local labor pool has been unable to supply sufficient numbers.

The first two appraisals above reflect the preponderant attitudes of the number of small "local service" establishments with less than twenty employees. The location of two large national corporations in the area has had a substantial impact on the local attitudes. The Goodyear and DuPont industries oppose generally the employment of workers not from the Topeka area because of the stability and continuity afforded by local hiring. The DuPont plant has a total personnel of 475 positions, yet the total turnover in a five year period of full time operation has been only about 150 workers. In view of the labor stability the policy may be expected to continue.

The attitude and policy toward employment of supervisory and executive personnel, however, is exactly the opposite. The national companies have transferred experienced personnel from other sections of the country to Topeka. Manufacturere coming to Topeka find it necessary to transfer administrative and professional executives to supervise operations because of a lack of experienced, qualified personnel

in the city. This is an established policy of these corporations and it is mandatory to the beginning and continuing of operations of the large scale divisional plants. The new administrative and professional personnel are generally pleased and enthusiastic with Topeka as a place of business and as a home for their families. Goodyear and DuPont are paralleled in the relocation of executive personnel by the American Yearbook Company.

The fact that larger cities close to Topeka attract a larger portion of the rural migration is to be expected. The normal wages are higher, and the larger metropolitan area offers a greater number of employment opportunities that encompass a broader range of qualifications open to a larger group with varying educational and skill levels.

The educational level. The overall educational level attained by the Topeka population compares favorably with urban areas throughout the nation. The high percentage of public administration and professional service employees in the city is responsible primarily. Almost all of the city's important manufacturers rely on the skilled or semi-skilled employee in one or more operations. The printing firms are prominent among these industries as are the metal fabrication shops and the large corporations--Goodyear and DuPont. Many manufacturers require experienced labor. To obtain a labor supply with qualifications, a large portion of the companies have on-the-job training or apprenticeship programs

for inexperienced workers.

The DuPont program is the most impressive and demanding in skills training. Before an employee reaches the status of a production worker, he is required to participate in an instruction program that may last from seven to twenty-two months, depending on the position for which he is being trained. A mechanic must undergo a thirty-two month training program that will familiarize him with the entire process in the manufacture of cellophane products. The training program is divided equally between practice sessions, classroom study, and actual work under close supervision.

The high quality of personnel is aided appreciably by educational facilities in and with proximity to Topeka. Kansas State University is situated fifty miles to the west at Manhattan. At Lawrence, twenty-four miles to the east, is the University of Kansas; and Kansas State College at Emporia is located fifty-five miles to the south. Washburn University is located within the city as are several smaller business and technical schools.

Beatrice Foods has depended on the school of dairying at Kansas State University during the fifty years the company has been in Topeka. The availability of well trained laboratory personnel has added to the research and improvement of dairying methods employed at Beatrice. Officials of the dairy school visit the plant periodically as a service to check equipment and methods used at the Beatrice plant in

Topeka.

Night school and trade education facilities at Washburn University are fostered by the policy of many companies that encourage employees to avail themselves of these opportunities. Brackett Stripping Machine Company and Henry Manufacturing benefit because the university and schools reduce the period for on-the-job training where company maintained training programs would otherwise increase the costs of operations. Harding Glass of Kansas, Inc. encourages its employees to attend night school, using higher wages and more rapid promotion opportunities as incentives.

The DuPont Corporation nationally has a company policy of refunding the tuition of any employee who is a college graduate and returns to school for further training. Seymour Foods contributes toward poultry development through research grants at Kansas State University, while Goodyear depends on area schools of business for graduates with administrative and executive potential.

The uses of educational facilities are indeed varied, but each contributes to the maintenance of a high quality, skilled labor force in Topeka. However, the continuation of many of these adult and special education programs depends primarily on the employer's support and employee's incentives to maintain a high quality working force.

Income. Table XV presents the median income for the United States. Also included is the "average income per

manufacturing employee." This figure, used for comparative purposes, was computed by dividing the total payroll in manufacturing by the total number of employees in manufacturing.²³

An analysis of the table indicates that Wichita has the highest paid manufacturing labor force in the area. Topeka levels or falls near the average for area cities. Greensboro, among U. S. cities used for comparative purposes, is exceptionally low because of the low wages paid in textile mills. In contrast, Beaumont stands high because the petroleum refineries and chemical companies require a highly skilled labor force. Rockford, as Wichita, has a substantial income among manufacturing employees.

From the interview schedules, each manufacturer in Topeka was asked how the annual income paid his employees compared with Kansas City and Wichita. Of the twenty-four respondents, eleven stated that the annual income of their employees was less than that of Kansas City. Nine indicated that employee income was higher than Wichita, whereas only one asserted that it was lower. Eleven stated that they met the competition of Topeka's manufacturers, and seven indicated frankly that the income of their employees was above other establishments in the city.

²³It is clear that the figure derived by this simple arithmetic process is distorted in favor of the wage earner, because it includes the income of salaried executives. However, it does present a basis for a comparison of Topeka to the national average.

In general, manufacturers in the Topeka metropolitan area believe that they must pay higher wages than Wichita and, because of its close proximity, must meet the prevailing wage schedule of the Kansas City industrial complex. Table XV shows that Wichita's median income and average income per manufacturing employee are higher than Topeka. It appears that the type of manufacturing and the importance of the activity in the total economy shows a strong relationship to income levels. Large corporations such as Good-year and DuPont have, in effect, raised income at important levels of manufacturing, but have had relatively little impact on the large proportion of smaller establishments where lower wages prevail.

The location and quality of present facilities.

Thirty-two of the manufacturing establishments in Topeka, about 24 percent, are localized in the central business district. Twenty-four of the total number of establishments have less than twenty employees. Forty percent of the total number of factories in the Topeka metropolitan area are located in the CBD and residential areas. These operations are small and located in basements, upper floors, or small "back-lot" structures for the most part. However, there are two notable exceptions to this locational pattern: (1) Hall-mark Cards owns a large two-story building at Eleventh Street and Kansas Avenue at the southern extension of the CBD; (2) American Yearbook Company occupies a new structure at 2035

Western in a residential section facing the fairgrounds. Except for these new plants the facilities are antiquated and will by and large fail to serve future demands for new manufacturing development.

Manufacturing plants located in commercial areas other than the CBD account for sixteen percent of the total number of establishments. These firms, for the most part, consider retail trade as important to their operation as orders received from wholesalers and manufacturers. The buildings in the southern and western sectors of the city date from the early 1950's and are relatively modern. Most of these establishments and industrial structures are embraced within areas annexed since 1950. A notable growth in the amount of manufacturing activity in the south and west sectors should not occur here because: (1) the value and location of available land for growth in an expanded residential area is priced to benefit commercial land use rather than industrial land use; (2) the access to and facilities for transportation to serve manufacturing are much better elsewhere in the metropolitan area.

Some growth in the manufacturing base should take place in the other two areas where manufacturing is already located because: (1) industry present tends to attract other or companion manufacturing; and (2) available land is zoned for industrial development. At present forty-four percent of the establishments are localized in areas zoned for

industry and are situated on the fringe areas of the city. Twelve of the fifteen firms with over 100 employees, the largest in the metropolitan area, have operations in these sections already. At present, land zoned for industry is located: (1) along both sides of the Kansas river; (2) flanking the Missouri Pacific and Santa Fe Railroads to the east and south; and (3) paralleling a portion of the Rock Island Railroad to the north. Outside the city limits development has established no previous pattern. Goodyear is located to the north along U. S. Highway 24 and DuPont is situated east of the city. The spotty development indicates that large national manufacturers seeking suitable sites have been attracted to these areas. However, the construction of residential areas is concentrating to the south and west of the city, not on vacant land north of the city. Plant facilities along the river and railroads are older and many of the firms were established in the late 1880's. At the present time, land zoned for industry is localized along older forms of transportation, the railroads and barge traffic. It is reasonable to assume that future increments to potential industrial sites will follow present and future highway development, especially along the major arteries such as Interstate 70.

Prospects for manufactural location and development.

The future for manufacturing industries in Topeka is directed toward the fringes of the present limits of the metropolitan

area. Ample vacant land is available without infringing on the rich agricultural lands of the Kansas River valley. Also, adequate railroad and truck transport facilities are present or could be provided easily. These facts are supported by the construction of additional facilities by Goodyear and DuPont in these areas. In the selection of plant site, these companies had to have space to spread, cheap land, railway and highway transport, and access for the local labor supply.

Within the city itself, a major urban renewal project is being undertaken that is altering the character of land use and zoning on the north and east sides of the CBD. Termed the "Keyway Project," it encompasses 24 blocks (70 acres) of clearing and rebuilding zoned strictly for commercial and industrial development. Interstate 70 will divide the area when completed. With access to the CBD, the surrounding neighborhoods, and the through highway, the area should become more commercial in texture. Manufacturing could be served well, but competitive bidding for land by retail and wholesale interests will surpass the maximum price premium that could be offered by manufacturers.

As the city expands areally and the population increases, the high quality of the labor force may be expected to alter, conforming more closely to the national urban average. Many private citizens in Topeka are reluctant or opposed to the influx of large scale manufacturing because it

would attract a laboring force with characteristics that would tend to increase the social and welfare problems of the city. However, if the city is to take on a manufacturing character, the outlook and prospect of civic leaders must face up to and plan for both the benefits of greater gross income and commercial expansion as well as the demographic, social and welfare challenges that accompany industrialization. The alternative to industrialization plus its consequences is obvious; it is to seek a different goal and character for the metropolitan area more compatible to the aims and hopes of the community and its leadership.

TABLE XIV

COMPLETED EDUCATION OF PERSONS OVER TWENTY-
FIVE YEARS OF AGE; THE UNITED STATES
AND SELECTED CITIES: 1960

	Median school completed (Years)	Completed less than 5 years (Percent)	Completed High School or more (Percent)	College graduates (Percent)
United States	10.6	8.4	41.1	a
Kansas City, Mo.	11.5	5.4	46.8	7.9
Kansas City, Ks.	9.8	8.0	34.2	4.9
Wichita, Ks.	12.1	3.0	54.5	10.4
Tulsa, Okla.	12.2	3.9	55.5	12.0
Omaha, Nebraska	12.0	4.1	51.0	9.0
Lincoln, Nebr.	12.4	1.7	62.6	14.6
Topeka, Ks.	12.1	3.1	54.4	11.5
Rockford, Ill.	11.0	5.4	43.1	7.7
Trenton, N. J.	9.0	12.6	29.6	5.0
Greensboro, N. C.	11.7	9.8	48.4	12.9
Beaumont, Texas	11.1	12.4	44.2	8.8
Glendale, Calif.	12.3	2.0	59.7	11.8

^aNot available.

Source: City and County Data Book, 1962.

TABLE XV

MEDIAN INCOME AND AVERAGE INCOME PER
MANUFACTURING EMPLOYEE; THE UNITED
STATES AND SELECTED SMSA'S: 1960

	Median income	Percent under \$3,000	Percent under \$10,000	Average income/mfg. employee
United States	\$5,660	21.4	15.1	\$4,791
Kansas City	6,317	14.1	17.3	5,061
Wichita	6,166	13.1	16.4	5,328
Tulsa	5,729	19.7	15.1	5,165
Omaha-Council Bl.	6,221	13.6	16.6	4,825
Lincoln	5,798	15.3	12.9	4,481
Topeka	5,931	15.9	14.5	4,939
Rockford	6,702	11.8	17.6	5,239
Trenton	6,707	11.5	21.9	4,938
Greensboro-H. Point	5,417	20.6	12.5	3,293
Beaumont-Pt. Arthur	5,910	20.1	13.1	5,970
Glendale	7,066	12.4	24.5	5,641

Source: City and County Data Book, 1962.

TABLE XVI

LOCATION OF MANUFACTURING ESTABLISHMENTS IN TOPEKA
BY NUMBER OF EMPLOYEES

	Number of Employees				Total	
	1-19	20-99	100-249	250-up	Num- ber	Per- cent
Central business dist.	24	7	1		32	24
Residential	18	1		1	20	16
Suburbs & outskirts	8		1	2	11	9
Industrially zoned	12	23	7	2	44	35
Commercial (other than the CBD)	14	5	—	1	20	16
Totals	76	36	9	6	127	100

Source: Field research and personal interview.

TABLE XVII

SUMMARY OF EXISTING LAND USE INSIDE THE
CORPORATE LIMITS OF TOPEKA: 1962

Land Use Class	Total Acres	Percent of Total Acres	Developed Percent of Total Acres
Single family residential	6,363.62	27.20	39.09
Multiple family residential	392.01	1.68	2.41
Offices and banks	62.14	.27	.38
Commercial	502.08	2.15	3.08
Industrial	592.72	2.53	3.63
Railroad right-of-way	394.34	1.69	2.42
Public and quasi-public	3,702.96	15.83	22.75
Streets and right-of-way	4,268.66	18.25	26.23
Vacant	6,421.87	27.45	-
Total land area	22,700.40	97.03	100.00

Source: Topeka-Shawnee County Regional Planning Commission.

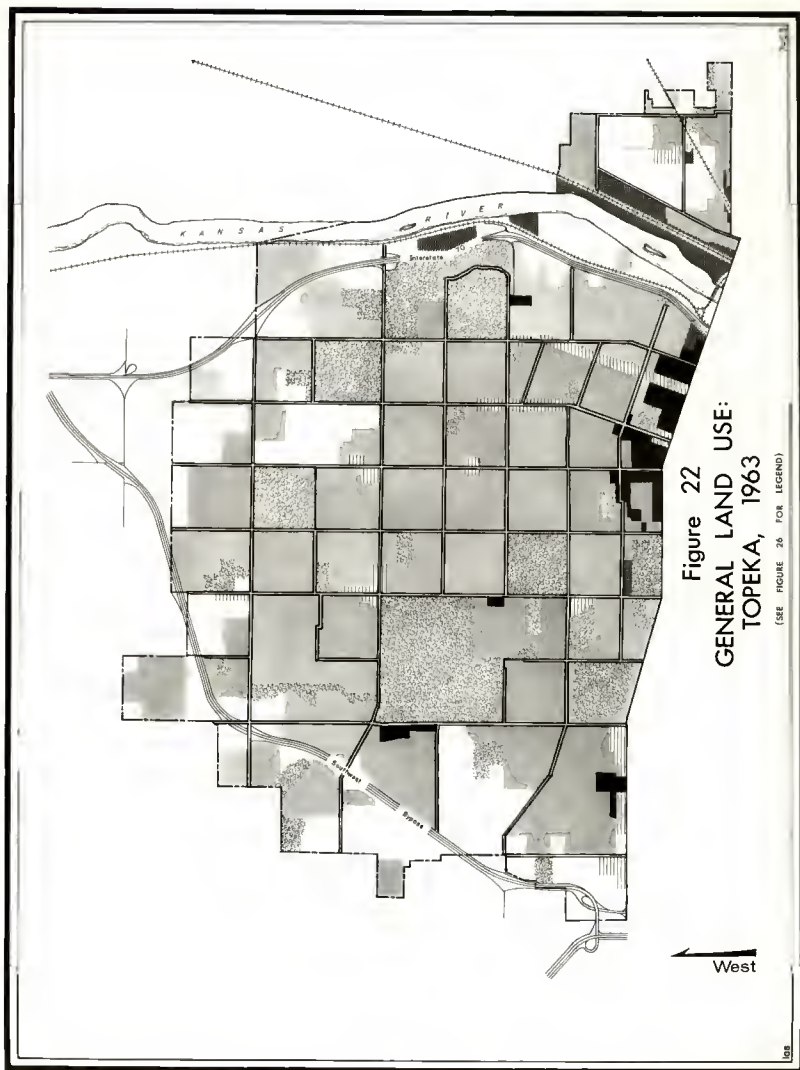


Figure 23

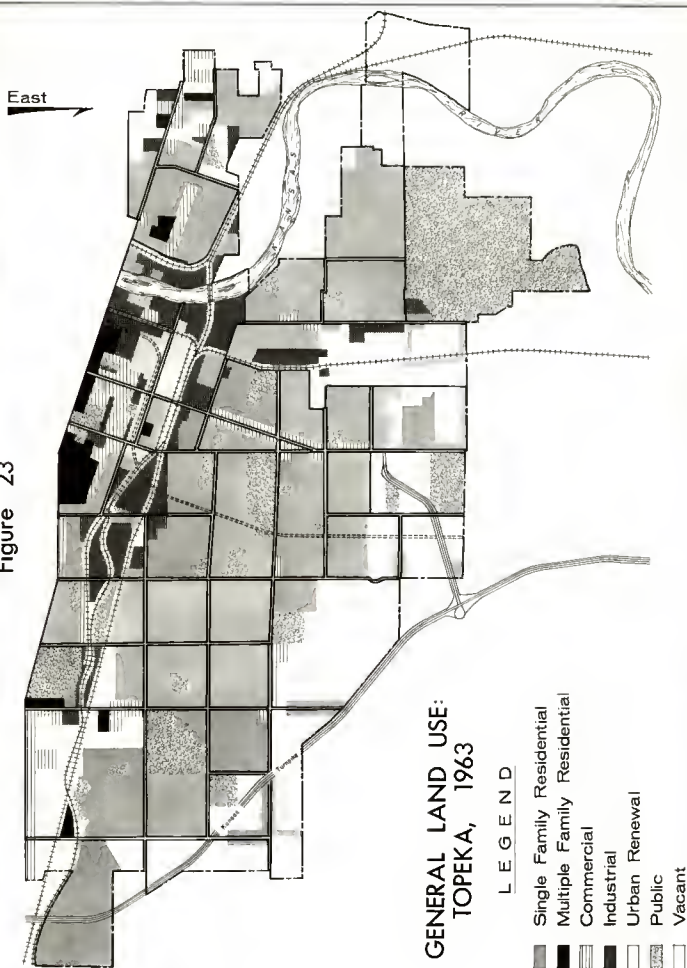


Figure 24. Abundant vacant land for industrial development is available on the north fringe of Topeka without imposing on the rich farm land of the Kansas valley.

Figure 25. "Project Keyway" has created sites for industrial and commercial structures exclusively. However, the character of the area will probably return to the types of land use dominant prior to redevelopment.



Figure 24



Figure 25

Figure 26. The situation of manufactural establishments in the central business district is exemplified by the two-story building at 5th and Harrison Streets. The basement is leased by a one-man print shop; the first floor contains a book bindery; and the second floor has office space for a company with production facilities elsewhere.

Figure 27. American Yearbook Company has been in Topeka only three years and has expanded operations to a new building in a residential area of southwest Topeka.



Figure 26



Figure 27

CHAPTER VII

THE MARKET AREA

Since the end of the Second World War, older markets have expanded and new ones opened in the trade areas of cities of the southern and western United States. In the past decade and a half many of these urban centers have become more significant as commercial centers and as regions for the location of expanded or new manufacturing activity. In his study of the industrial growth of Colorado and Utah John Garwood indicated this when he stated that, "of all the forces which attracted new industries . . . the greatest was that of markets."²⁴ If the amount of manufacturing in Topeka is to increase in the future, the growth of the market will be one of the most important attractive factors inducing the migration or establishment of enterprises. The description and analysis of the distinguishing characteristics of the market area of Topeka is essential to assess the present situation and to identify possible directions of change that will foster the establishment of manufacturing activity in the city.

Among the more essential factors warranting considera-

²⁴Garwood, John D., "An Analysis of Postwar Industrial Migration to Utah and Colorado," Economic Geography, (Vol. 29, No. 1, January, 1953) p. 80.

tion are: (1) the historical development of the market, the classification and characteristics of goods, and the geographical distribution within the trade area; (2) the geographical analysis of the present market area relative to the size-group of the establishments; (3) the origin of raw materials and manufactured components supplying manufacturers in Topeka; and (4) the impact of population growth on small manufacturers who depend on the local market primarily.

Early market and product development. As indicated previously, the initial manufacturing development was oriented to two functions: (1) serving the immediate needs of a small Plains trade center and its rural hinterland; and (2) supplying the demands for goods of service industries that encompassed a larger portion of the city's economy. Processed agricultural commodities from the area encouraged the production of perishable and non-perishable food products restricted to a market by time and distance. Increased speed in transportation and the rapid development and introduction of preservation methods enabled an extension of the market into a potential trade area on which processors capitalized. Manufacturers not involved with food products sought their clientele in Topeka and its immediate hinterland. Small printing firms such as Hall Lithographing served the needs of the railroads and other service industries. A limited group of metals products were fabricated

on a custom order basis for railroads, construction trades, and private industries.

At the beginning of the twentieth century, improved connections with markets both east and west were accompanied by enlargement of the facilities of several important establishments. Since 1889, Adams Business Forms, Inc. has expanded its facilities in Topeka to serve the entire nation. The Hill Packing Company has constructed divisional offices throughout the country since 1910 for improved distribution of its pet foods and greater access to sources of raw material.

Another group of manufacturers continue to rely on the local market because of the perishability of their products or the protection given by freight rates from potential competitors elsewhere. Alexander Baking Company has been in Topeka fifty-six years and retains nearly the same region for its bread products. The interest of Alexander is not expansion of its market area but saturation within a fifty mile radius of Topeka. Capitol Iron Works maintains 80 percent of its sales in Topeka because of the high freight rates on long distance hauling of heavy fabricated steel, and its ability to fabricate quality items to specifications for the local market at competitive cost.

The present market area of Topeka. The influx of new manufacturing establishments and the expansion of prewar facilities has altered the boundaries of Topeka's trade area.

A secondary effect has been produced by the recent national trends affecting industrial location and marketing in the United States. DuPont located in Topeka to better accommodate the growing markets in the western United States.

Goodyear was seeking facilities to serve a market area in the Great Plains and eastern Rockies, an area divided formerly between the main plant at Akron, Ohio and the divisional plant at Los Angeles.

With few exceptions, the extent of the geographical market area of each manufacturer shows a strong positive correlation between the total number of employees and the product. The notable exceptions include manufacturers of specialty and custom order goods from establishments that maintain no consistent market. Figures 28-31 portray cartographically the geographical distribution of products within the market area of five manufacturing enterprises in Topeka. An analysis of the maps and interview data permits an evaluation of Topeka's location as a center of local, regional, and national markets.

Goodyear Tire and Rubber Company. The Goodyear plant at Topeka is one of four major distributors for this enterprise throughout the nation. Total employment is 2,150, by far the largest private employer in Topeka. The national corporation produces approximately 2,200 different rubber products, but no single factory produces all types. The Topeka plant produces automobile, truck, farm implement, and

road building equipment tires. The result of this divisional specialization is a close relationship coordinating production among all regional plants. Products are shipped to regional warehouses for redistribution to wholesalers and eventually to the retail outlets. The tires are also delivered directly to manufacturers of motor vehicles. In May, 1963 approximately 4,500,000 pounds of tires were sent to Kansas City for redistribution. Although production in Topeka is for Goodyear's mid-America region primarily, the market area is nationwide. In the near future Goodyear will expand the Topeka facilities, including the construction of storage facilities that will eliminate redistribution from Kansas City.

Hydro-Flex Corporation. The Hydro-Flex Corporation has only twelve employees. The principal product is flexible copper tubing used in heating systems. There are only two other companies in the country who are major competitors with Hydro-Flex. The product market is national in scope. Because of the nature of the product over 80 percent of the sales are concentrated in the northern two-thirds of the United States. However, Hydro-Flex is beginning to diversify its variety of products with emphasis on tubing for air-conditioning units to increase its marketing potential in the South and other "warm climate" areas.

Two-thirds of the company's sales are derived from personal contact with distributors and construction firms.

The balance is sold as a processed industrial good to original equipment manufacturers. An example is the sale of copper tubing to automobile manufacturers for use in cooling systems.

The Topeka Capital-Journal. The distribution of newspapers presents a unique situation in market analysis. Several factors must be considered in the determination of a market area. The most important include: (1) the element of time in distribution to markets; (2) the point at which local advertising becomes impractical; (3) the ability to quickly and effectively report local and state events; and (4) competition with other newspapers.

News is a highly perishable and fragile commodity and its market is determined in part by the time consumed in distribution to the consumer. It is interesting that the time-distance factor affecting Capital-Journal circulation parallels the termination of the effectiveness of local advertising and news. Theoretically, the Capital-Journal concentrates in the northern half of Kansas from Kansas City to the western border. However, competition from Kansas City and St. Joseph newspapers eliminates portions of markets in the extreme eastern part of the state. The principal market area incorporates at least 21 counties surrounding Topeka, weighted to the north and west. A secondary market area is of lesser importance but embraces counties and cities from central Kansas to the Colorado border. The south-

ern half of the state is eliminated because of strong competition from newspapers in Wichita, Hutchinson, and Dodge City.

Topeka Foundry and Iron Works. This company is oriented to a local market. The foundry has been located in Topeka for eighty years and continues to derive 90 percent of its market from the metropolitan area. The remaining 10 percent is divided about equally between sales in Manhattan and Emporia. A major portion of the fabricated and structural steel products are sold to construction firms. In Topeka, the company completes standard and custom orders for larger firms such as Goodyear and DuPont, as well as manufacturing and maintenance work of facilities at Forbes Air Force Base. A generalized characterization of Topeka's market area by using examples of several types of manufacturing establishments taken from the size-group classification has been presented. The examples identify the principal factors that restrict or encourage the manufacture of products in Topeka and indicate the potential of future development.

The source of raw materials and components. The origin of raw materials or processed industrial goods consumed normally by Topeka's manufacturers may be divided into two broad categories: (1) food and related products that are derived from primary agricultural production; and (2) basic, non-agricultural raw materials, processed goods, or unassembled

bled components ready for further elaboration. The first category is supplied from the agricultural hinterland of Topeka primarily or from production districts of the surrounding states. Grains, particularly wheat, constitute the most significant raw material resource. Flour mills and bakeries in Topeka rely on Kansas and eastern Colorado for the ingredients of their products. Meat processors have access to the livestock production and finishing districts of the entire Great Plains region. Agricultural commodities are the only resources of large volume or significant value used by manufacturers to originate west of the city. Sand, gravel, and limestone are abundant locally in the Topeka region. Sufficient amounts are extracted to supply firms in the city and nearby towns.

The classes of materials to be manufactured or processed by other manufacturers originate generally in the manufacturing belt to the northeast and, on occasion, in the South. Warehouses in Kansas City serve as entrepôts for goods in a variety of stages of manufacture and assembly. They supply many items that have originated in the east. Paper and newsprint, for example, are purchased from Canada and the Upper Lake states. The southern Lake Michigan and Pittsburgh-Youngstown industrial complexes supply crude metal products as well as machine tools and industrial machinery.

Large corporations digress somewhat from this general

pattern. Goodyear operates its own rubber plantations in Southeast Asia. The other ingredients necessary to the manufacturing process such as fabric, chemicals, and wire are produced in establishments owned by Goodyear. DuPont takes advantage of available product sources nearby when possible. Although the wood pulp used in making cellophane originates in the Pacific Northwest, local markets are utilized to provide the caustic soda (Wichita), sulfuric acid (DeSoto, Kansas), and packaging (Lawrence) essential to the final product.

American Yearbook Company, Inc. is one of the newest corporate names on the manufactural horizon of Topeka. In 1960 the company purchased Myers Yearbooks, a local printer manufacturing school annuals. The principal reason for American's entry into the Topeka scene was the opportunity to obtain an established company and market. However, to an organization with national agencies, the location has proven to be an excellent distribution point to a market covering the Great Plains region.

The market area is well defined. It covers fifteen states between the Rocky Mountains and the Missouri River-Kansas border line. Iowa and Missouri are not included because they lie in the market area of another divisional plant at Hannibal, Missouri. The company is unique since it sells directly to consumers on a custom order basis. For

this reason, market orientation is more essential to the company than to manufacturers of other goods who ship their products to warehouses, wholesalers, or other manufacturers.

The movement of a national corporation into the Topeka metropolitan area indicates that the manufacturer recognizes in the relocation, stabilizing, and growth in population of the region the emergence and potential of an expanded or new market capable of supporting his enterprise.

The effect of population growth on small establishments. The rapid population growth and concomitant emergence of a market of size in Topeka has exerted an adverse impact on the size-group of manufacturers who have less than twenty employees and limited production capabilities. The effect is indicated in several establishments, but two examples typify the change occurring in Topeka.

Scott Brothers Ice Cream Company has been serving the local market for forty years. Although the company was never large, the number of employees has been dwindling. The reason for this competition stems from large dairies and chain food stores that have constructed facilities in Topeka as the population size of the city has turned into a competitive market for processors of large scale. Because of declining production Scott is unable to compete with sale prices, the result of sales volume and turnover, that super markets offer constantly. Scott's production is diminishing and eventually manufacture will be limited either to products

sold in their own retail store or the retailing of products purchased from the larger dairy corporations.

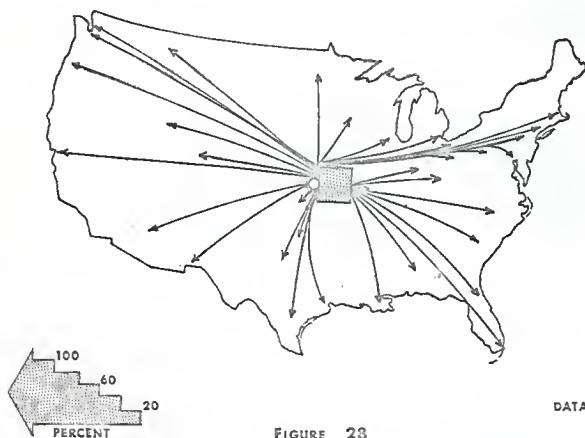
McEntire Brothers, Inc. is facing a similar problem, but on a regional basis. At one time the market area for McEntire's sleep products was national in scope with concentration in the Midwest-Great Plains area. But national and regional population growth has induced larger bedding manufacturers to enlarge their distribution and market areas into the eastern Plains cities. They have presented the company with two alternatives--to grow and compete, or to contract operations and reduce their market to the limits of Kansas. The company is reverting to the Kansas retail market and custom work. At present, 95 percent of McEntire's trade is in Kansas. The retail outlet in Topeka constitutes 35 percent of the total and the figure is increasing.

Summary. The population growth of Topeka and the entire Great Plains region has caused significant alterations in the market area of the city's manufacturers and the city itself as a market. New establishments have strengthened the limits of trade throughout the western United States, as well as the entire nation. However, as these changes occur and diversification increases, raw material availability will be a definite problem.

Topeka and urban centers in the Kansas River and adjacent valleys now constitute markets of size capable of supporting manufacturers of consumer goods. With this advantage

Topeka manufacturers are: (1) experiencing the impact of competitors from outside of Topeka; and (2) in some cases find themselves unable or unwilling to face the competition. On the other hand, with an enlarged market, there is a good potential for the location of these outside manufacturers in the Topeka area.

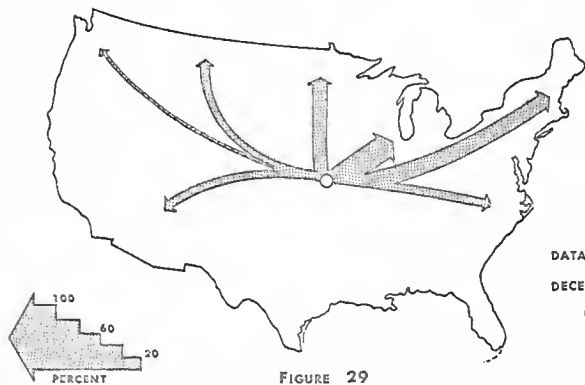
Market Distribution of Tires
(Goodyear Tire and Rubber Company)



DATA: MAY, 1963

FIGURE 28

Market Distribution of Copper Tubing
(Hydro-Flex Corporation)

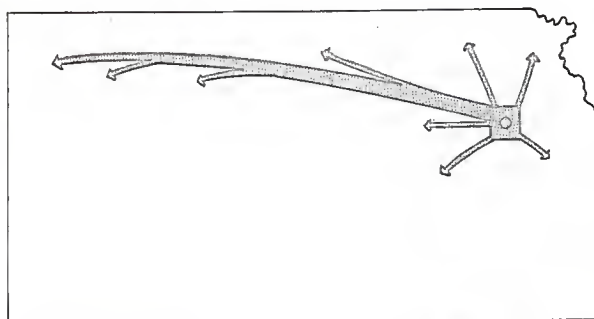


DATA:
DECEMBER, 1962 -
MAY, 1963

FIGURE 29

7-63

Market Distribution of Newspapers
(The Tapeka Capital Journal)



DATA AVERAGE DAILY
CIRCULATION

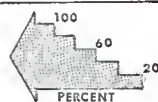
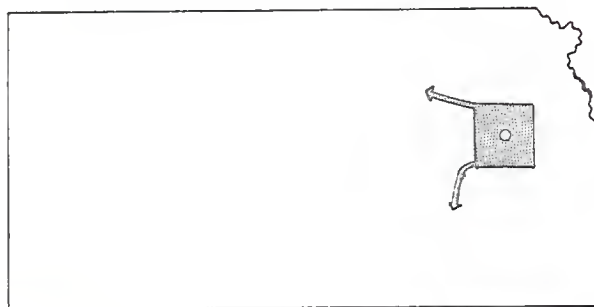


FIGURE 30

Market Distribution of Fabricated Steel
(Tapeka Foundry and Iron Works)



DATA: MAY, 1963

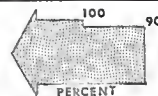


FIGURE 31

7-63

Figure 32. The new Topeka Capital-Journal building was completed in May, 1963 to provide more extensive facilities to improve service and distribution to the growing population within the market area.

Figure 33. The central offices and processing plant of Seymour Foods provides distribution of egg and poultry products to divisional establishments throughout the nation and to retailers in the Topeka area.



Figure 32



Figure 33

Figure 34. Alexander Baking Company has been in the same location for 56 years. The building is on Tenth Street near Kansas Avenue on the south fringe of the central business district. Because of competition and the nature of the product, Alexander maintains a market area of local nature.

Figure 35. Brackett Stripping Machine occupies two adjoining buildings in the central business district at 505 Jackson. Due to the specialized nature of the product Brackett has extended its trade area to domestic and foreign markets.



Figure 34



Figure 35

CHAPTER VIII

TRANSPORTATION AS A FACTOR IN MANUFACTURAL LOCATION

The contribution of the transportation media--railways and trucking companies--as service and industrial employers in Topeka has been described previously. Among the larger manufacturers in the size-group categories, the presence and utility of transportation facilities is of prime importance. However, the smaller manufacturers did not indicate that transportation was a significant factor in the location of their enterprise.

Numerous metropolitan areas along the Midwest-Great Plains border have railway and highway carrier networks equal or superior to Topeka. In fact, several cities such as Omaha and Kansas City have not only more direct connections, but also more frequent schedules linking them to markets in the west and southwest as well as to suppliers and large manufacturing centers in the east. The magnitude of direct competition with these cities solely in terms of transportation facilities is obvious. But this is not the objective of the analysis to follow. A general description and discussion of the facilities in Topeka and their relationship to manufacturing is necessary to highlight in what areas, if any, the unique, or at least competitive qualities are offered to prospective manufacturers in the metropolitan area.

A brief description of the surface transportation facilities. Four railroads offer regularly scheduled service to Topeka. The volume of traffic is composed principally of freight, and the volume of inbound traffic exceeds outbound tonnage by a large margin. The Santa Fe is the only railroad that maintains a main line through the city, and it parallels a more heavily traversed route from Kansas City that passes southwest of Topeka.

The Santa Fe is the only rail carrier with large repair and maintenance yards and extensive office facilities in Topeka. Most of these were built between 1874 and 1924. At the present time most of the rail facilities are not in use, reflecting an excess of railroad equipment and the changing character of the role of the nation's railway industry. The Santa Fe offers excellent connections to the Southwest and Pacific coast and east to Kansas City and Chicago.

The Missouri Pacific Railroad reaches Topeka by a spur from the main line situated to the south at Osawatomie. Only freight is carried, and the facilities, though modest, are adequate to handle the amount of freight contracted. To compete with other Topeka railroads the Missouri Pacific has waived the back-haul rate so that rates to or from Topeka are identical to those to and from Osawatomie, the point of main line intersection. Although the Missouri Pacific radiates out over Missouri and Iowa, the principal freight route

direction from Topeka is to the Gulf Coast and the principal commodity handled is grain.

In the size of facilities present in Topeka, the Union Pacific is second only to the Santa Fe. Although it is a main line of the system, it is secondary to the trans-continental line reaching the west coast more directly across Nebraska from Omaha, the main eastern terminal for the railroad. Through Topeka, the direction of traffic on the main route of the Union Pacific is east to Kansas City and St. Louis, and west to Denver and intermediate points along the line across northern Kansas.

The Chicago, Rock Island, and Pacific Railroad's connection with Topeka is via a secondary line. It also offers connections throughout the west and east to Chicago.

Seventeen of the twenty-two trucking companies with facilities in Topeka serve Kansas primarily and several surrounding states. The geographical range of these carriers is limited when compared to the railroads. However, the local and statewide trucker functions in a special role. Goods from Topeka bound for distant eastern markets are carried to larger terminals such as Kansas City by the local company and transferred to nationwide trucks. The process of interlining is more effective in trucking than in railroads because it takes less time to transfer cargo.

The national trucking lines in Topeka do not maintain extensive operations. Facilities are restricted primarily

to garage and repair shops. In fact, the city is bypassed because of its proximity to east-west terminals in Kansas City. Interlining allows local truckers to return to Topeka with cargo from Kansas City and other cities throughout the country.

Factors that support transportation as a localizing element. The railroads have not added equipment or increased their service notably to Topeka during the last decade. However, trucking companies have benefited from the growth of traffic and the highway improvements of recent years. The Interstate system will facilitate further the movement of fast truck freight on both long and short hauls. The use made of through highways will increase because of advantages in the time element. The advantage of speed added to the ability to unload or transfer quickly will aid the truckers further.

The time-distance factor is locally effective for railroads that pass directly through Topeka enroute from east to west. For shipments to the Pacific coast the one hour, fifty-six mile advantage over Kansas City is unimportant. But on a short haul basis to cities in Oklahoma, western Kansas, and eastern Colorado, Topeka does realize an advantage.

The most important element supporting railroads in Topeka is the "in-transit" feature. Although employed predominantly for purposes of grain milling, the railroads are

extending the service to other commodities. To illustrate the effectiveness of this feature, consider the example of a wheat shipment from Salina, Kansas to a Mississippi Gulf port. It costs 58.5 cents per 100 pounds for direct shipment. Yet should the grain stop at Topeka for milling, the total charge under conventional tariffs would revise the rates to 83 cents per hundred pounds. The advantage with the milling-in-transit is obvious since only six cents is added to the rate, thus saving the shipper almost twenty cents per hundred pounds.

The Missouri Pacific has broadened the savings by including manufactured products originating in the east to its list of "in-transit" items. It is essential for this railroad to initiate such measures if traffic from the main line is to be maintained. The "in-transit" feature clearly allows Topeka to compete favorably with nearby cities, but its advantage is no greater than other transportation centers.

Transportation as employed by manufacturing. In general, the railroads carry the heavy, bulky products from Topeka; whereas trucks transport lighter products from establishments of skilled or semi-skilled nature. The principal items transported by rail are grains, followed by sand, canned food products, metals and machinery. Most of the grain is bound for the Gulf coast. The number of carloads dispatched by the Santa Fe Railroad from Topeka in May, 1963 is a representative sample of shipments in the Spring season. The

Santa Fe shipped 515 carloads of grain from Topeka, 88 percent of the total destined for various western Gulf ports. Sand is distributed to several nearby cities including Emporia and Atchison. Canned food products totaled twenty-six Santa Fe cars in May. Fourteen cars went to the east coast states and a total of eight to California, Oregon and Washington.

On the whole, the products hauled by Santa Fe are representative of all the railroads, with one notable exception. The Goodyear factory is located on a siding provided by the Rock Island. Although a small portion of the tires produced by Goodyear are carried by each railroad, the Rock Island handles practically all the shipments.

Many manufacturing establishments are opposed to rail shipment because of the time lost in railroad switching yards. For this reason, Adams Business Forms, which serves every state in the nation, ships entirely by truck. Seymour Foods also uses truck transport because the markets and sources of eggs and poultry are often distant from good railroad service. Perishability is not a factor because of refrigerated trucks and the eggs and poultry are marketed within a one-day radius of Topeka. The number of small manufacturers in Topeka indicates the use of trucks to carry shipments of different sizes and often to local destinations.

Summary. Topeka is too close to Kansas City to realize a distinct advantage in transportation. The only area

in which Topeka can offer benefits in distribution is on a local basis, that is, to Oklahoma, Kansas, Nebraska, and eastern Colorado. At the present time Topeka is a larger consumer of manufactured products than a shipper.

Other area cities are establishing industrial parks zoned exclusively for industry with access to shipping routes, especially railroads. A meager attempt by the Rock Island to develop an industrial area on the north side of Topeka has attracted one manufacturing establishment to the area. The White Lake complex along the Santa Fe tracks south of the city is more successful in terms of the number of new establishments. However, no manufacturer has located in the area to date. It is interesting that the new structures in the complex are office buildings and banking facilities. This is evidence that service industries and white collar employment are increasing in Topeka.

The number and variety of transportation carriers in Topeka is more than adequate for the amount of manufacturing present. As the city increases its population and amount of manufacturing activity, related services such as transportation will also show an increment in the volume of traffic. Although the facilities serve the city satisfactorily, transportation media can be considered an advantage only as a consequence of the distribution potential for manufactured goods, growth of population, an increasing pool of skilled labor, and available space. The marked expansion of the

metropolitan area and industrial sites appear to be factors of secondary consideration in describing the attractiveness and potential for manufacturing in the Topeka region.

Figure 36. The Union Pacific Railroad has increased operations and traffic in Topeka. Also, several potential rail sidings have been added to offer industry substantial transport facilities.

Figure 37. Rodney Milling Company has developed large operations in Topeka because of the favorable milling-in-transit rates offered by the railroads.



Figure 36



Figure 37



Figure 38



Figure 39

CHAPTER IX

GENERAL SUMMARY AND CONCLUSIONS

Topeka's 1960 population of 119,484, an increase of 40,693 or 51.6 percent since 1950, has opened new markets only recently for the city and has allowed for significant changes in the economic structure. Significant gains for an urban area in this population category are typical of the many changes in population location, distribution, and density, also, as a market outlet. Several of these elements in particular have been operating for the past two decades in realigning urban characteristics in the western United States. Among the elements are: (1) the rural to urban migration that has increased urban population greatly in predominantly agriculturally oriented areas; (2) the general increases in population throughout the western U. S. have caused a westward shift in the nation's population center; and (3) the out-migration, so prominent in the Great Plains during the 1930's, has leveled. As a result, Topeka and nearby cities are located more advantageously and an upturn in population size appears to favor expansion of many groups of economic activity.

Regional localization of several metropolitan areas of size within a 200 mile radius of Topeka has exerted a definite impact on the evolution of economic activities in

the city. No one of these cities is smaller in population and, with the exception of Lincoln, Nebraska, all can offer on one or more levels of competition, advantages to the location of manufacturing activity equal or superior to that of Topeka. Of special note is the metropolitan area of greater Kansas City since it is situated only 56 miles east of Topeka. Greater Kansas City possesses a more diversified range of manufactural and service activities broad in scope and of substantial depth, including (and, in some cases, incorporating) similar activities in Topeka. Furthermore, Kansas City is an established entrepot for goods in many stages of manufacture between the northeastern U. S. and expanding markets in the Southwest and on the Pacific coast. The effect of the very close proximity of a larger urban area and partial geographic encirclement by other larger urban areas has reduced the economic opportunity of the Topeka metropolitan area to the position of serving an immediate hinterland.

The population size and growth of Topeka have supported the service industries that dominate the city's economy already. Public administration, a major economic activity since Topeka's founding, continues to function on an expanding local and statewide basis. Retail trade also responded to the needs of a growing and increasingly affluent population. For example, the construction of the Fleming warehouse in north Topeka early in 1963 eliminated the daily

need to ship food products from Kansas City by truck to Topeka. Moreover, the warehouse serves as a distribution point to smaller communities in the Topeka area.

In the area of manufacturing activity, however, Topeka remains a small manufactural satellite of larger industrial complexes to the east. With the exception of agricultural resources, raw materials for manufacture arrive from supplies located to the east in transit from warehouses in Kansas City or directly from processors such as the southern Lake Michigan and Pittsburgh-Youngstown areas. For this reason it may be concluded that heavy industry will not locate in Topeka. There has not been a significant growth in Topeka in the number of manufacturing establishments or employees in the last 25 years. The increase in the number has been only eighteen. Although manufacturing employment between 1940 and 1960 increased by 1,771, the 1950-1960 decade reflected an overall decline of 185 workers.

The addition of two manufacturing plants built by Goodyear and DuPont, large for this region of the U. S. but of modest size elsewhere in the American Manufacturing Belt, have been followed by only small interest by other manufacturers. Apparently, they are not indicative of a trend toward manufactural growth. These two manufactural operations of scale persist as unique attributes of the overall manufacturing scene in Topeka, even though they have become dominant in many aspects of the urban economy. Of a total of

127 manufacturing establishments, 112 have less than 100 employees. Seventy-two of the total are located in areas that are antiquated and not attractive to further development.

The clear dominance of service industries tends to submerge the growth of the manufacturing activity. The entrenchment of transportation, public administration, and professional services early in the economic development of the city created an occupational structure that cannot be altered easily. The labor force of Topeka is white collar in character primarily and depends on this list of leading activities. Also, changes in the size or characteristics of the urban population composition of Topeka alone will have little effect as an attraction to new forms of economic activity to the city. However, this growth does indicate the expansion of facilities for transportation, public administration, and professional services.

However, those factors that do favor manufactural development in Topeka are significant. But they offer few, if any, advantages unique to Topeka over larger cities in the area. The most important factor is market access. Manufacturers and distributors are seeking new manufactural distribution locations to better serve marketing areas in the Great Plains, Southwest, and eastern Rocky Mountains. In this respect the Topeka metropolitan area can offer a good and competitive situation.

A dependable labor force that is skilled or semi-

skilled is available. There are several reasons for this: (1) the majority of unskilled laborers choose to work in larger cities nearby because of greater job availability; (2) there are ample educational facilities both in and near Topeka; (3) the types of manufacturing present demand certain levels of skill and experience; (4) manufacturers are extremely careful of the quality of labor they hire; and (5) the importance of service industries in Topeka attracts the personnel with higher educational attainments.

An examination of the general land use map (Figures 22 and 23) shows that land is available for industrial development on the northern and eastern margins of the city. The railway and highway facilities in these areas is also noted. Residential growth is being directed toward the newly annexed sections to the south and west. There is an extensive urban renewal development in progress on the north and east segments of the central business district, which will be zoned entirely for commercial and industrial facilities. However, with excellent access to the local urban market added to intercity connections provided by Interstate 70, the seventy acre development will revert, in all probability, to land use very similar to what occupied the area prior to redevelopment. The value and market price of most of the cleared land will be competitive with land use for retail and wholesale trade, and will be priced by market and taxes beyond the investment capabilities of most manufac-

turing enterprises.

The Topeka Chamber of Commerce and the Economic Development Commission are promoting and encouraging the migration of large-scale manufacturing enterprises to Topeka. A significant number of private citizens are opposed to this promotion. Their opposition is based on an awareness of the problems often consequent of a labor force that accompanies many types of activities. Businessmen have indicated a need for more manufacturing in the economy. An increase in the amount of the activity could have a positive effect on the stability of the city's economy. However, the service industries in Topeka can support a growing population quite adequately.

The growth that may occur in manufacturing employment will be proportional to the growth in total population. White collar workers will continue to dominate the occupational scale in the city and the intermediate geographical position of the city, coupled with the early entrenchment of tertiary activities, forecasts the economic base of the city into the foreseeable future.

Manufacturing will remain oriented to the skilled and semi-skilled activities primarily, and the processing establishments dependent on the agricultural products of the hinterland. Manufactural activity in Topeka is in transition. At the present time there is a modest diversification toward groups involved in fabricated metals and stone, clay,

and glass products. The introduction of heavy industries is unlikely because: (1) the distance from raw materials enables Topeka to import the finished products at a rate not above the cost of shipping the necessary ingredients for manufacture; and (2) larger area cities already producing heavy industrial products can serve the market area affected by Topeka.

The potential of increased manufactural activity exists in: (1) the production of goods unique in character such as that of the Hydro-Flex Corporation; (2) those commodities in which (a) raw material assembly and/or (b) distribution costs are relatively minor importance to the product; (3) in newer industries that can utilize the local and regional educational facilities to advantage; and (4) industries that could benefit from research facilities and professional consulting services that have thus far been underutilized in the Topeka and Kansas region.

The prominence of the three groups of service activities and primary production of agriculturally based material will continue. However, these provide a springboard and support to further development of manufacturing activity. The character of the labor and professional potential is superior, generally, since northeast Kansas urban areas are exporters of skilled labor and professional personnel to the nation. Topeka, although under the influence of larger cities nearby, can be a specialized auxiliary center to the

surrounding region utilizing the advantage of location. These elements are accompanied by the advantage of local and regional urban markets of size that are capable of supporting consumer goods industries in markets with purchasing power equal to or above the national average.

Finally, an increase in manufactural activity in Topeka is not essential to sustain the economic vitality of the city. However, Topeka cannot compete geographically with larger neighboring cities as Kansas City and Omaha in either manufacturing output or potential. Topeka will remain a growing market for manufactured goods; perhaps a distributor of increased size; but a manufacturer of only modest proportions. Although the long-term trends in population and industrial decentralization and western market development in the United States have assisted the diversification of Topeka's economy, the benefit will be realized most outstandingly in the tertiary functions so essential to the city's present economic function.

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APPENDIX

APPENDIX A

KANSAS STATE UNIVERSITY
DEPARTMENT OF GEOLOGY AND GEOGRAPHY
INDUSTRIAL INTERVIEW SCHEDULE - 1

Name of Company _____

Address _____

Date of Interview _____

Interviewer: Lloyd A. Stjernberg _____

A - LOCATION

1. How long has the plant been located in Topeka? ____ Years,
____ Months. Why did this business locate in Topeka?

2. Is this a "local" industry? ____ A subsidiary of a
larger corporation? ____ Ownership: Family owned ____
Partnership ____ Corporate ____.

3. What are the major products of the business? 1)_____;
2)_____; 3)_____. Does the plant provide:
(List types.)

Raw materials _____ Distribution _____

Assembly _____ Packaging _____

4. Why was Topeka chosen as the site for your business?

Which of the following were 1) originally important in
your choice (list in order - 1,2,3, etc.), and 2) still
play a leading role (list in order - A,B,C, etc.)?

INDUSTRIAL INTERVIEW SCHEDULE - 1 (Page 2)

- Good transportation system: _____ Available Power Sources: _____
- Tax advantage: _____ Freight Rate Schedule: _____
- Sale/rent prices for land: _____ Available raw materials: _____
- Good distribution point: _____ Good water supply: _____
5. Where do you ship each of the products? (Destination and percent of each.) _____
6. Is your customer: a) processor; b) assembler; c) wholesaler; d) retailer. _____
7. How would you describe the town in which your customer is located (farm center, small manufacturing, large metropolitan area, etc.)? _____
What is its population? _____
8. Where does your final product reach its ultimate market? _____

B - PRODUCT

1. What materials are required, and what is the origin of each?

<u>Basic</u>	<u>Processed</u>	<u>Manufactured</u>	<u>Components</u>
1)	1)	1)	1)
2)	2)	2)	2)
3)	3)	3)	3)

INDUSTRIAL INTERVIEW SCHEDULE - 1 (Page 3)

2. What are the specific names (not brand) of the products?
 1) _____; 2) _____; 3) _____.
3. Is the material perishable? ____ If so, what is the
 method of preservation or storage? _____

C - LABOR

- | | |
|------------------|---------------------------------|
| 1. Employment: | 2. Division of employment: |
| | Office Production Service |
| Total: _____ | _____ |
| Permanent: _____ | _____ |
| Part time: _____ | _____ |
| Seasonal: _____ | _____ |
3. Educational level (years):
- | |
|---|
| 4. Does the average annual
income equal: |
| Topeka Kansas City Wichita |
| Office: _____ |
| Production: _____ |
| Service: _____ |
5. Do you consider the factors in question #3 above an
 advantage or disadvantage? _____
6. What special training, or skill is required?

Do you consider the accessibility of educational facilities in and near Topeka an advantage? _____

Do you use them? _____

INDUSTRIAL INTERVIEW SCHEDULE - 1 (Page 4)

7. What is the geographic origin of most labor? (In percent)

	Local	Small town	Rural	Kansas City	Midwest	South
Present:	_____	_____	_____	_____	_____	_____
18 Mos.:	_____	_____	_____	_____	_____	_____
5 Years:	_____	_____	_____	_____	_____	_____

8. What do you feel is, or has been, your contribution to the growth and economy of industrial Topeka?

APPENDIX B

MANUFACTURING ESTABLISHMENTS INTERVIEWED

Establishment	Product
Adams Business Forms, Inc. 200 Jackson Street Interviewed (April 3, 1963) Mr. P. Adams, Vice-Pres.	Sales books, guest checks, manifold books
Alexander Baking Company 107-15 W. 10th Street Interviewed (April 29, 1963) Mr. S. Alexander, Pres.	Bread and buns
American Yearbook Co. (Myers Div.) 2035 Western Avenue Interviewed (April 3, 1963) Mr. R. Hengerer	Yearbooks
Archer-Daniels-Midland Co. Menoken Road Interviewed (April 3, 1963) Mr. O. Bird, Manager	Dehydrated alfalfa
Atchison, Topeka, and Santa Fe Railroad 9th & Jackson Sts. Interviewed (May 8, 1963) Mr. W. Cox, Director of Public Relations	Railroad freight cars
Beatrice Foods Company 2nd & Polk Streets Interviewed (April 3, 1963) Mr. Olson	Dairy products
Brackett Stripping Machine Co. 505 Jackson Street Interviewed (May 1, 1963) Mr. O. Swenson, Foreman	Electrical machinery
Brumme Manufacturing Company 1521 Seward Avenue Interviewed (May 2, 1963) Mr. F. J. Brumme, Owner	Draft inductors

<u>Establishment</u>	<u>Product</u>
Burres Printing Company 502 Harrison Street Interviewed (May 2, 1963) Mr. F. Burres, Owner	Commercial printing
Capital Iron Works Company 7th & Adams Streets Interviewed (May 2, 1963) Mrs. W. H. Shields	Structural steel
E. I. DuPont de Nemours & Co., Inc. Tecumseh Interviewed (April 3, 1963) Mr. V. Carlson	Cellophane
General Printing and Paper, Inc. 305 E. 17th Street Interviewed (May 10, 1963) Mr. W. P. Furlong, Pres.	Commercial printing
Goodyear Tire & Rubber Company U. S. Highway 24 West Interviewed (April 1, 1963) Mr. McCune, Labor Mgr. Mr. W. Heil, Public Relations Mr. G. MacKaskie, Distribution Mgr.	Tires
Hall Lithographing Company, Inc. 1947 N. Topeka Avenue Interviewed (May 8, 1963) Mr. O. Lippett	Commercial printing
Harding Glass of Kansas, Inc. 724 Jackson Street Interviewed (April 29, 1963) Mr. B. Schaberg	Glass products
J. M. Hart & Company, Inc. 210 W. 6th Street Interviewed (May 10, 1963) Mr. J. Hart, Pres.	Commercial printing
Henry Manufacturing Co., Inc. 1700 N. Clay Street Interviewed (May 9, 1963) Mr. A. Henry, Jr., Gen. Mgr.	Road building equip.

<u>Establishment</u>	<u>Product</u>
Hill Packing Company 401 Harrison Street Interviewed (May 2, 1963) Mr. D. Hogue, Vice-Pres.	Pet foods
Ohse Meat Products, Inc. 204-06 Kansas Avenue Interviewed (May 17, 1963) Mr. D. Ohse, Vice-Pres. Mr. G. A. Seaman	Meat products
McEntire Brothers, Inc. 227 Quincy Street Interviewed (May 8, 1963) Mr. D. B. McEntire, Pres.	Bedding products
Seaboard Allied Milling Company 126 N. Jefferson Street Interviewed (May 9, 1963) Mr. C. Kastner	Flour
Seymour Foods, Inc. 101 N. Kansas Avenue Interviewed (May 9, 1963) Mr. P. Henderson	Egg and poultry products, egg processing machinery
Stauffer Publications, Inc. 6th & Jefferson Sts. Interviewed (June 25, 1963) Miss Shirley, Sec'y to Mr. O. S. Stauffer	Newspapers
Topeka Foundry & Iron Works Co. 300 Jackson Street Interviewed (May 1, 1963) Mr. J. Bybee, Vice-Pres.	Structural steel

AN INVENTORY, EVALUATION AND PROJECTION
OF MANUFACTURING
IN
TOPEKA, KANSAS

by

LLOYD A. STJERNBERG

B. S., Northern Illinois University, 1961

AN ABSTRACT OF A THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Geology and Geography

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1963

ABSTRACT

This study is a geographic interpretation of manufacturing in Topeka, Kansas. The investigation: (1) classifies and evaluates manufacturing activities in Topeka; (2) applies and tests selected techniques of urban and manufacturing geography; (3) proposes for future investigation several unresolved problems in the changing urban-economic situation in Topeka.

The classification of manufacturing is based on: (1) the employment structure and the groups of manufacturers as defined by the U. S. Census of Manufactures; (2) the field reconnaissance and mapping of general land use patterns; and (3) the personal interviews to collect data unavailable from other sources. The character of Topeka and its relative position is examined by a comparison to selected cities divided into two groups: (1) those cities within a 200 mile radius of Topeka; and (2) cities of similar population in selected geographic and economic regions of the United States. Several techniques of classification and analysis made by economists and geographers were applied, including John H. Thompson's multiple-criteria method of measuring manufacturing magnitude, or quantity, and intensity--the importance of manufacturing in an area's economy.

Topeka's labor force, drawn from a balanced and growing local urban population, is predominantly white collar

and engaged in service activities primarily (transportation, public administration, and professional services). This pattern should continue in Topeka because: (1) the city is historically oriented to these activities and they cannot be altered quickly; (2) the structure relies on these economic activities; and (3) the normal changes anticipated in population composition will have little effect on new manufacturers in Topeka.

The number of manufactural enterprises and employment in the economic activities of Topeka are of only moderate importance. The available labor force is skilled or semi-skilled generally, and is considered dependable. The principal reasons are: (1) the majority of unskilled laborers seek work in cities nearby because of greater job availability; (2) there are excellent educational institutions with proximity to Topeka; (3) the manufactural activities require skills and experience; and (4) the service industries attract personnel with higher educational attainments.

Transportation and the marketing area, with particular emphasis on the milling-in-transit feature, are assets to the economic growth of Topeka. But, they do not present an advantage greater than that found in other cities in the western Midwest-Great Plains region. Topeka does have a small advantage over Kansas City and Omaha toward certain markets in Oklahoma, Kansas, Nebraska, and eastern Colorado.

Manufacturing will remain oriented to the skilled and semi-skilled activities primarily, and the processing of agricultural products from the hinterland. In Topeka, opportunities for manufactural activity focus on the production of (1) goods unique in character, (2) those commodities in which (a) raw material assembly and/or (b) distribution costs are of relatively minor importance to the product, (3) in newer industries that can utilize the local and regional educational facilities to advantage, and (4) industries that could benefit from research facilities and professional consulting services that have thus far been under-utilized in the Topeka and Kansas region.

Finally, an increase in manufactural activity in Topeka is not essential to sustain the economic vitality of the city. However, Topeka cannot compete geographically with larger neighboring cities as Kansas City and Omaha in either manufacturing output or potential.